L.U.N.C.
Commerce R. R.

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EXTILE BULLETIN is published onthly by Clark Publishing Co., 218 West Morehead St., Charlotte 2, N. C. Subscription 1.50 per year in advance, $3 three years. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.

NON-FLUID OIL
TRADE MARK REGISTERED

ASSURES
EVEN SLIVER FROM CARDS

Uneven card sliver is usually due to Doffer and Top Flats getting out of adjustment because of bearing wear. Dripping, leaking oils do not prevent wear—they don't stay in bearings long enough.

Drip-less and waste-less NON-FLUID OIL stays in bearings, lubricating dependably until entirely consumed. For the same reason, it keeps off card clothing and outlasts oil—saving on lubricant and application cost.

We are prepared to furnish mills with skilled engineering service. Send for Bulletin T 5 and free testing sample of NON-FLUID OIL.

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292 Madison Avenue, New York 17, N. Y. Works: Newark, N. J.

Southern District Manager: FALLS L. THOMASON, Charlotte, N. C.

WAREHOUSES: Atlanta, Ga.—Birmingham, Ala.—Charlotte, N. C.—Columbus, Ga.—Greensboro, N. C.—Greenville, S. C—Chicago, Ill.—Detroit, Mich.—Providence, R. I.—St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricant, but is a specific product of our manufactur So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

10 *Reasons* WHY DRAPER PARTS ARE THE *Best for Your Looms!*

1. UNIFORM CASTINGS
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9. THEY ARE CUSTOM BUILT FOR YOUR LOOMS
10. THEY GIVE THE BENEFIT OF CONSTANT RESEARCH AND DEVELOPMENT

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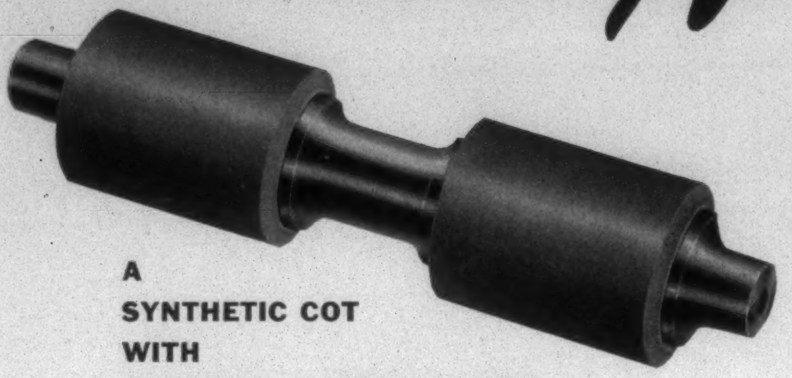
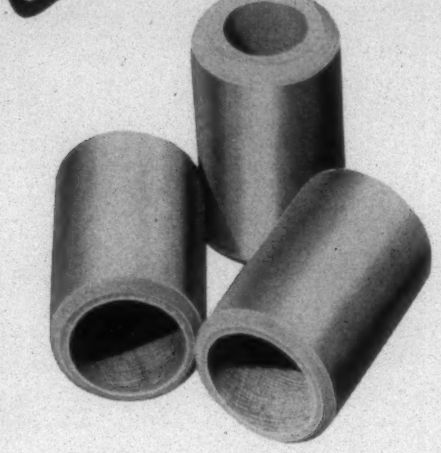
THE SONOCO *Ameroid Cot*—



A
SYNTHETIC COT
WITH
EXTRA LONG LIFE



The excellent drafting surface and unusual toughness of the SONOCO Ameroid Cot combine to give you high quality spinning at low cost.

Why?

Because SONOCO construction features a woven fabric inner lining that affords easy application and positive adherence to the roll.

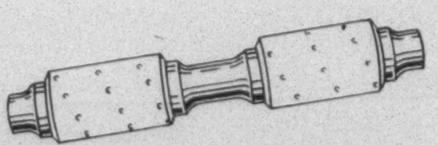
Because the SONOCO Ameroid Cot helps reduce lap-ups and ends down.

Because it is weather-proof and oil-proof.

Because the SONOCO Ameroid Cot is of uniform density, designed for longer wear and repeated rebuffings.

Because its resilient consistency prevents hollowing out, grooving or flattening from week-end shut-downs.

Write direct or contact your SONOCO representative for a test run in your own mill.



Perforations Prevent Excessive Eyebrowing . . . a SONOCO exclusive.

This is an optional feature recommended for use with flat clearer boards.

SONOCO PRODUCTS COMPANY

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ONT.

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S. C.

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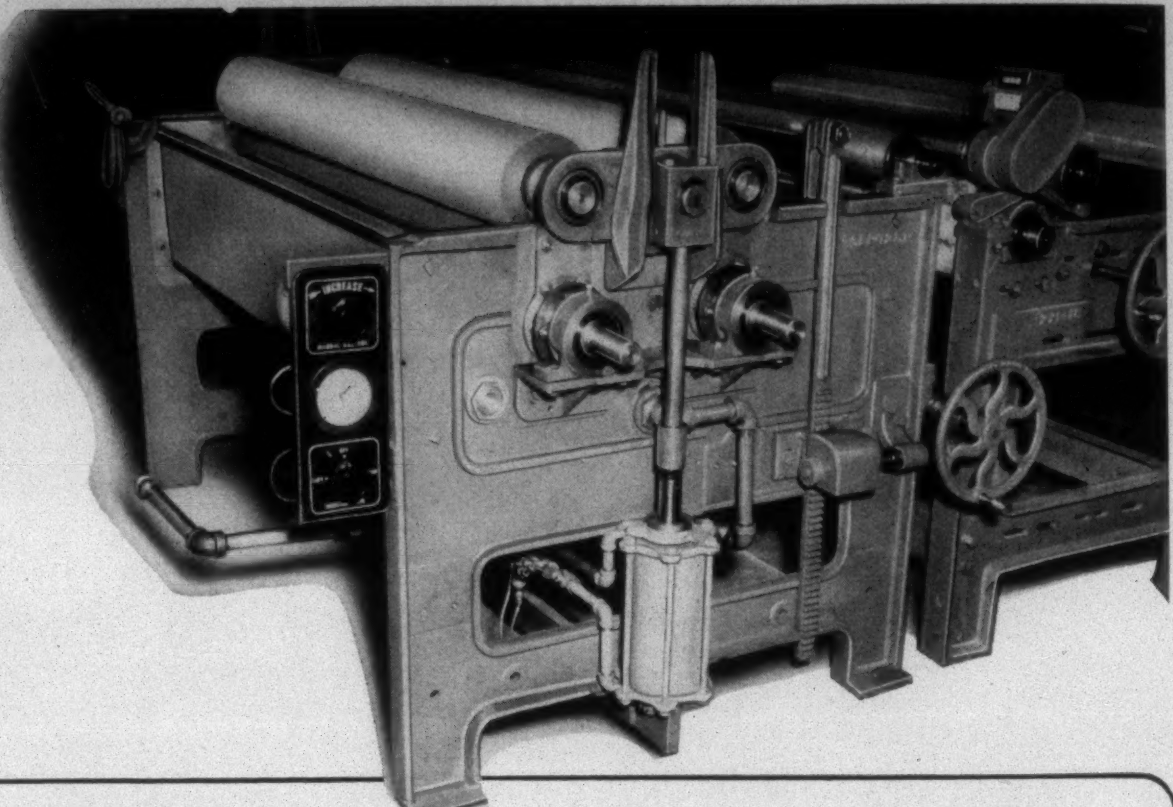
CONN.

DEPENDABLE SOURCE OF SUPPLY



PNEUMATIC LOAD and LIFT puts the RIGHT pressure on Squeeze Rolls

Size penetration is accurate and easily adjusted with the WPF & M Pneumatic Load and Lift device.

The pressure control gauge and knob on the control panel can be set to any predetermined load without guess work. Change over from light to heavy sets is accomplished in seconds, without switching squeeze rolls, by increasing or decreasing pressure as required.

The WPF & M Pneumatic Lift and Load device can be installed on your present equipment without costly alterations.

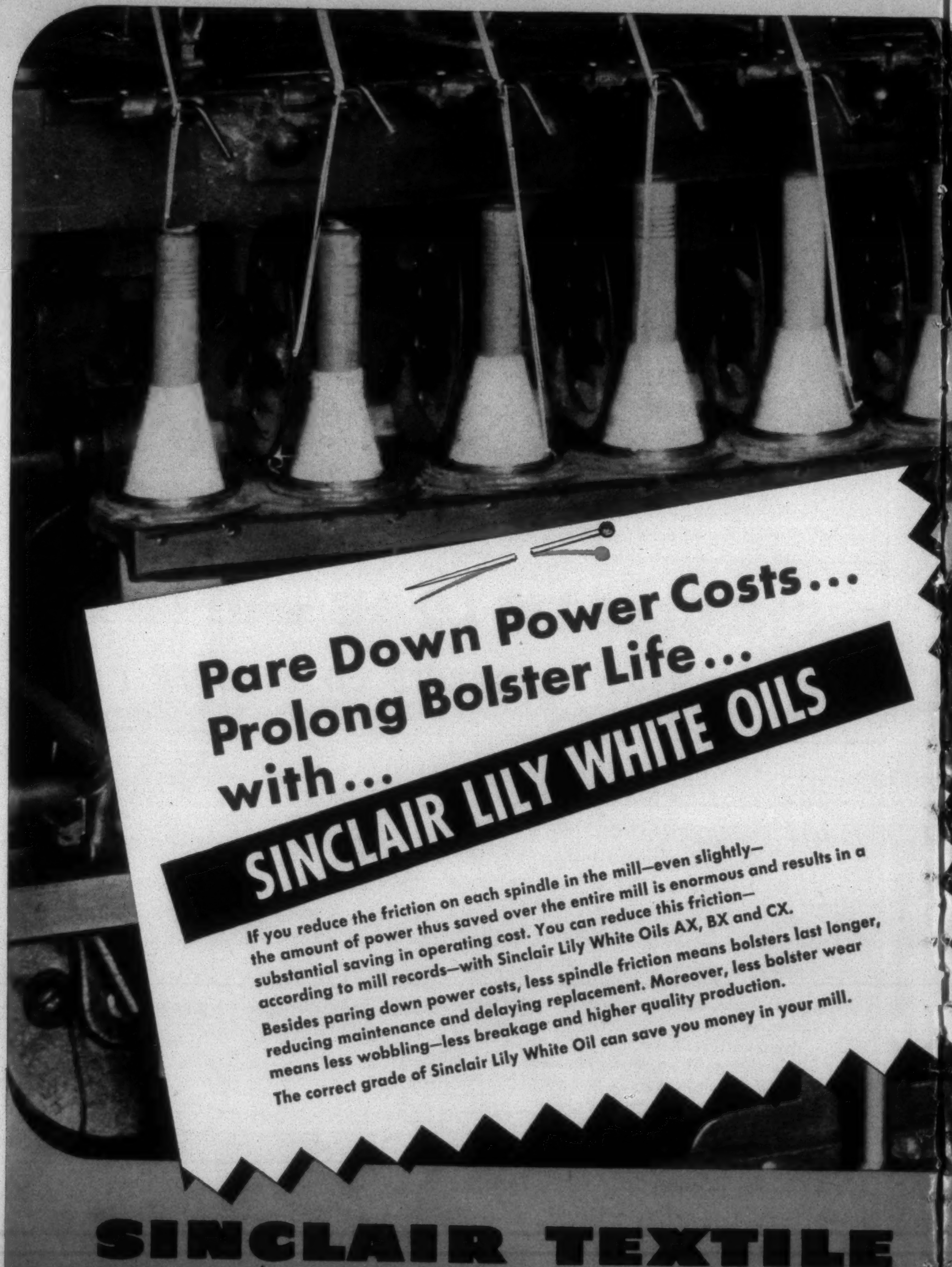
Ball bearing journals are provided for squeeze roll journals for smooth, long-lasting operation.

You can reduce change-over time on your slashing equipment, eliminate the back-breaking drudgery of lifting squeeze rolls and obtain accurate size penetration time after time with the Pneumatic Load and Lift equipment.

We'll be glad to make a survey of your requirements if you desire.

WPF&M Co.

WEST POINT
FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA
Textile Machines . . . To Solve Your Problems



Pare Down Power Costs... Prolong Bolster Life... with...

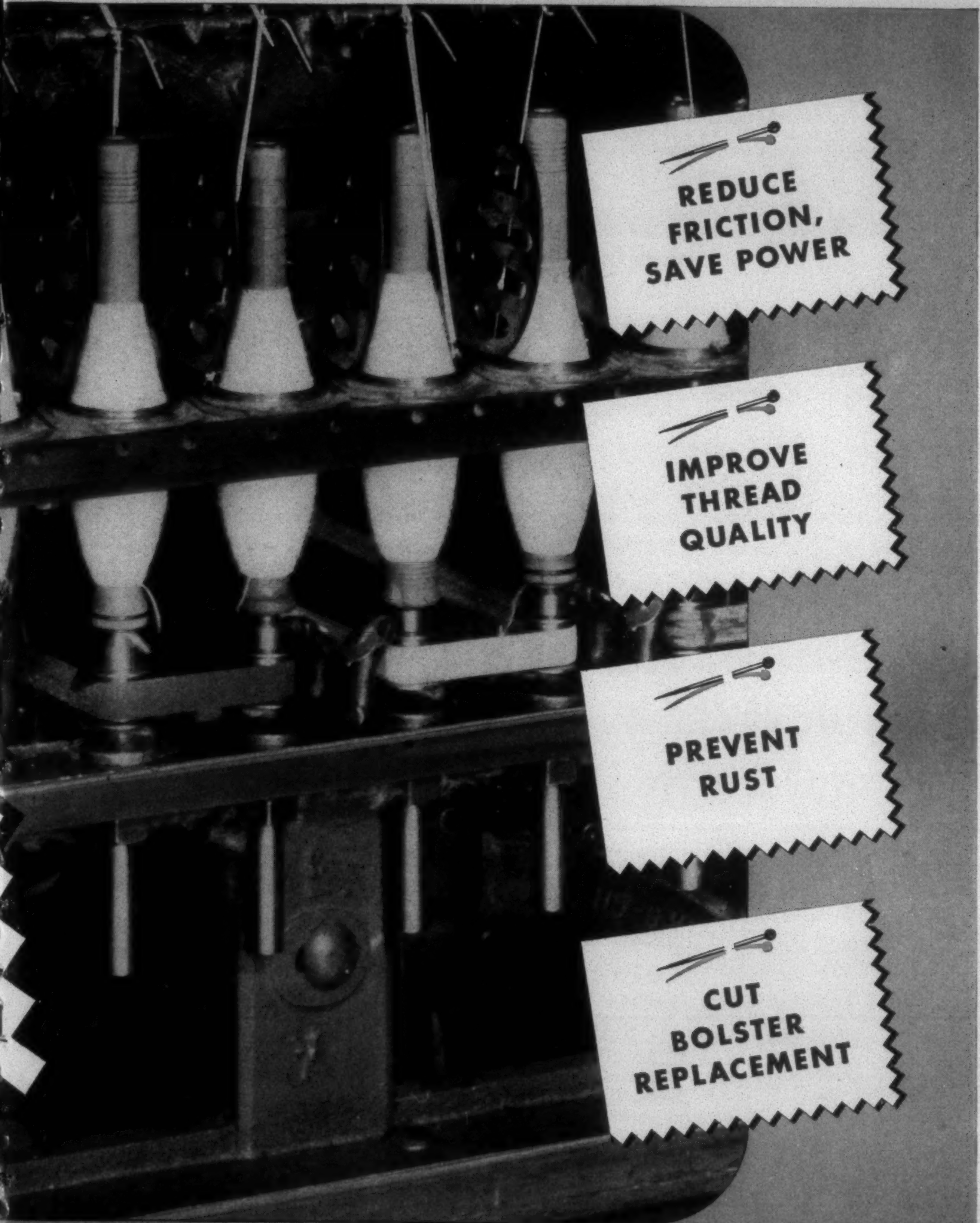
SINCLAIR LILY WHITE OILS

If you reduce the friction on each spindle in the mill—even slightly—the amount of power thus saved over the entire mill is enormous and results in a substantial saving in operating cost. You can reduce this friction—according to mill records—with Sinclair Lily White Oils AX, BX and CX.

Besides paring down power costs, less spindle friction means bolsters last longer, reducing maintenance and delaying replacement. Moreover, less bolster wear means less wobbling—less breakage and higher quality production.

The correct grade of Sinclair Lily White Oil can save you money in your mill.

SINCLAIR TEXTILE



LUBRICANTS

For lubrication counsel, see your nearest Supplier of Sinclair Products or write Sinclair Refining Company, 630 Fifth Avenue, New York 20, N. Y.

To Be Sure . . .

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DEXTRINES

GUMS

CORN SYRUPS

The A & Eagle is your assurance of highest quality. Products of Anheuser-Busch offered to the textile industry are produced with the same great care, skill, experience and insistence on perfection that have made Budweiser the most famous beer in all the world.

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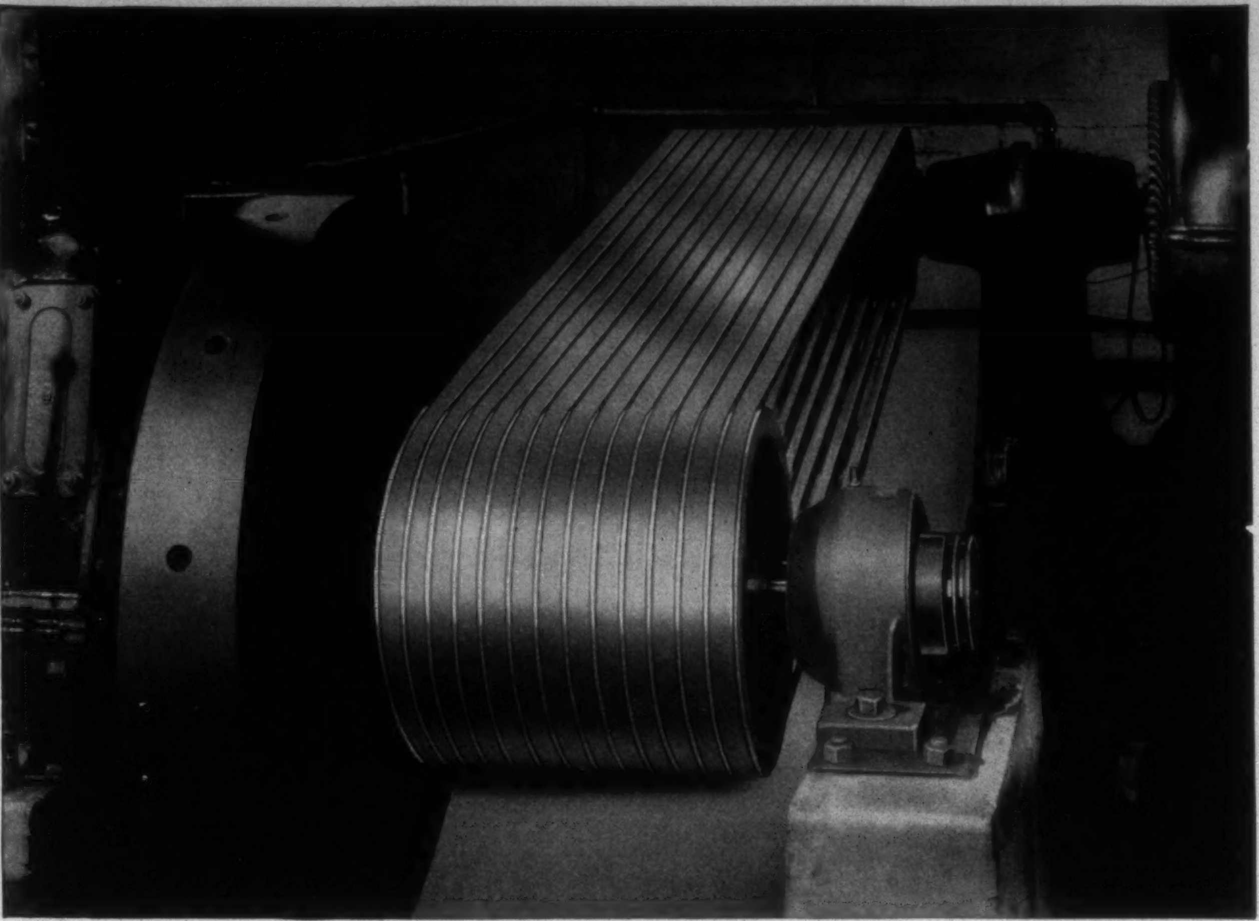


THE *Smoothest Running* V-BELTS MADE

New Improved *Condor* Whipcord V-Belts

Manhattan Engineers, constantly working to lower your power transmission costs, have developed New Improved Condor V-Belts for still longer life, better wear and smoother running.

Strength members of super-strength synthetic fiber cords, are precision controlled on the neutral axis "power line" of the V-Belt. This precision control is possible only with the Manhattan developed full molding, pressurizing process.

Variation in V-Belt balance is now virtually eliminated—

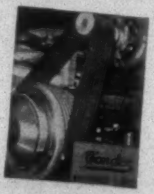
To you, this means more perfectly balanced V-Belts with longer life, less vibration and wear on your V-Belt powered drives. If you are not already one of the many users who are convinced of the important savings in these New Improved V-Belts, be sure to specify Condor Whipcord V-Belts on your next requisition. Buy through your Manhattan distributor.

(Note: For tough, rugged drives try the new brawny RAY-MAN V-Belts, which are also non-spark, oil-proof and heat resistant.)

DO YOU HAVE THIS FOLDER IN YOUR FILE?

This useful V-Belt Bulletin #6868C will be mailed on request.

Keep Ahead with Manhattan



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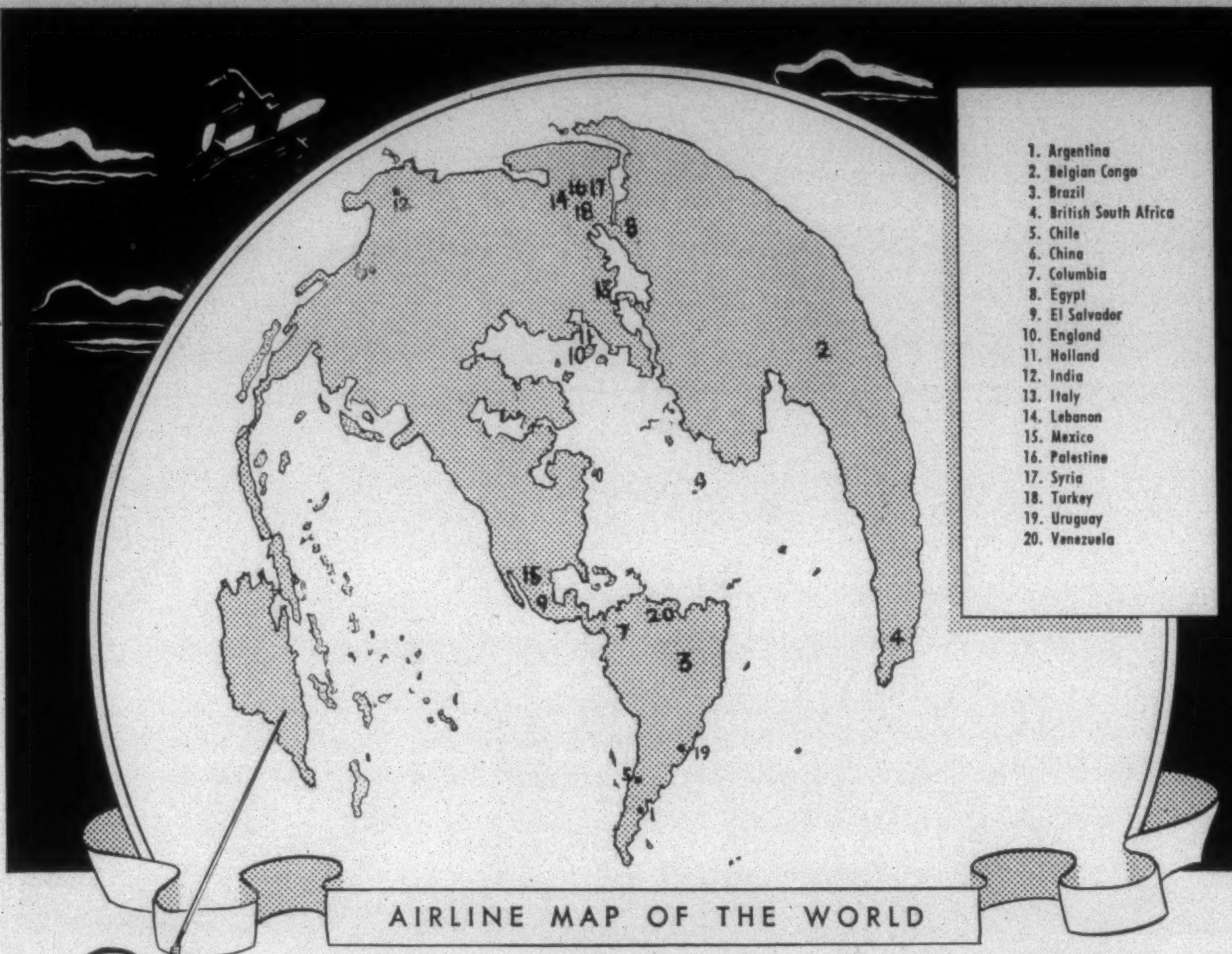
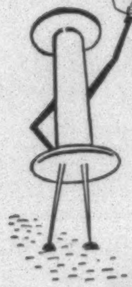
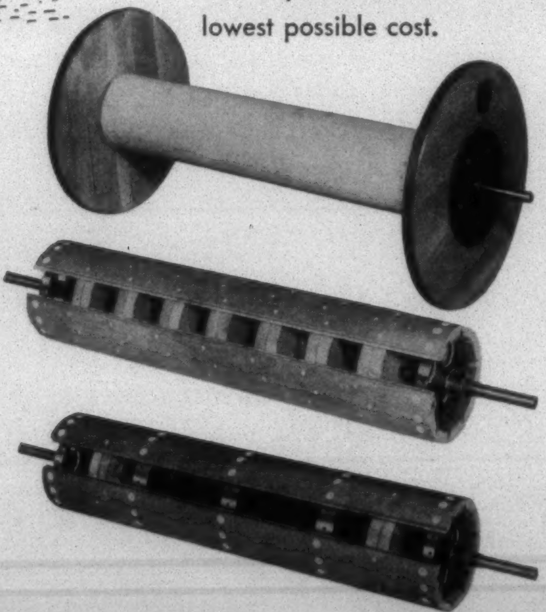
Manufacturers of Mechanical Rubber Products • Rubber Covered Equipment • Radiator Hose • Fan Belts • Brake Linings • Brake Blocks • Clutch Facings • Packings • Asbestos Textiles • Powdered Metal Products • Abrasive & Diamond Wheels • Bowling Balls





ALLEN BEAMS THE WORLD

In the vast majority of the world's textile producing countries, you will find Allen beams on the warpers and looms. Long-life, trouble-free, true-running at highest speeds—these qualities assure, to any mill anywhere, beam service that is thoroughly dependable, at lowest possible cost.



GK — COTTON

With Improved Cast-iron Inside Supports at ends, and three two-ply wooden supports between.

GR — RAYON

With Improved Cast-iron Inside Supports at ends, and seven two-ply wooden supports between.

GN — NYLON, SYNTHETICS

With five Improved Cast-iron Inside Supports as shown.

ALLEN
BEAM COMPANY

High Speed Warper Beams
Warper Beam Heads
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GOOD WARPS ARE MADE ON GOOD BEAMS

for Unusual color effects

on any fabric for any purpose,
let National Technical Service
suggest a low-cost combination of

National Aniline Dyes

NATIONAL ANILINE DIVISION
ALLIED CHEMICAL & DYE CORPORATION
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Columbus, Ga. New Orleans Chattanooga Toronto

*EXTREME PRESSURE

All production machinery will last longer — give better service — if the proper lubricant is used. That's why you will find it profitable to use high quality Tycol oils and greases in your plant.

There's a reason! No matter what your lubricating need — *EXTREME PRESSURE, high or low temperature, high speed or any other service condition — there's a Tycol oil or grease suited to your specific requirements.

Refined from the highest grade crudes, Tycol lubricants are exceptionally resistant to breakdown which means greater economy . . . longer machine life for every type of equipment.

Tide Water Associated will gladly recommend the Tycol lubricant that meets your particular requirements. Call, write or wire your nearest Tide Water Associated office today.

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TIDE WATER ASSOCIATED OIL COMPANY

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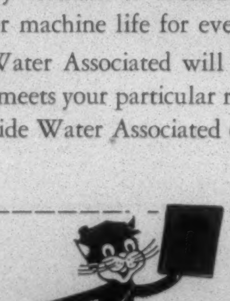


***LEARN WHAT THIS PRODUCT CHARACTERISTIC MEANS TO YOU — READ "LUBRICANIA"**
This informative handbook, "Tide Water Associated Lubricania," gives clear, concise descriptions of the basic tests used to determine important properties of oils and greases. For your free copy, write to Tide Water Associated Oil Company, 17 Battery Place, New York 4, N. Y.

REFINERS AND MARKETERS OF VEEDOL — THE WORLD'S MOST FAMOUS MOTOR OIL

CUT COSTS • INCREASE EFFICIENCY STEP UP PRODUCTION

With Sheet Metal Parts of PROVEN QUALITY

Made and Delivered with DEPENDABLE SERVICE

Production profits from beginning to end are yours—*if* your preparatory machinery is geared for efficient, economical volume production. One of the South's oldest and most experienced sheet metal plants is prepared to help you do just that. Through the years this organization has earned a reputation for top quality products, painstaking workmanship and reliable service. You will find that this kind of special knowledge and experience applied to your maintenance problems will make an important contribution to continuous, profitable production.

Simply write, wire or phone

GASTONIA TEXTILE SHEET METAL WORKS, INC.
GASTONIA, NORTH CAROLINA

A SHEET METAL WORKS SERVING TEXTILE MILLS

Announcing
Gulfspin

keeps spindle blades and bolsters clean

reduces friction and power consumption

This outstanding new spindle oil can help you make important dollar savings in maintenance and power costs!

Gulfspin keeps spindles remarkably clean—much cleaner than ordinary spindle oils. Here's why: Gulfspin is not only highly resistant to the formation of sludge, but also has the remarkable ability to prevent sludge from depositing on blades and bolsters.

Gulfspin has excellent oiliness characteristics and load carrying ability, which insure against excessive wear in cast iron bolsters. This means freedom from spindle wobble and lower maintenance costs. And it does not increase in viscosity even after extended service. Thus power consumption is kept at a minimum. Then, too, this superior spindle oil has excellent rust preventive characteristics.

Users of Gulfspin report improved lubrication and a complete absence of sludge deposits after many months of service. See for yourself—on your frames—that this new spindle oil is better in every way.

For further information, write, wire, or phone your nearest Gulf office today and ask a Gulf Lubrication Engineer to call.

Gulf Oil Corporation · Gulf Refining Company

GULF BUILDING, PITTSBURGH, PA.

Sales Offices - Warehouses

Located in principal cities and towns throughout

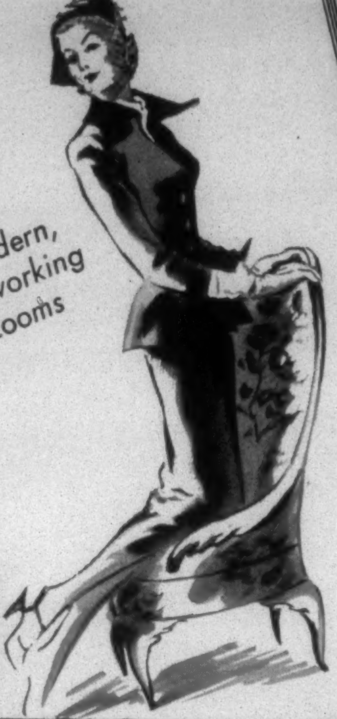
Gulf's marketing territory

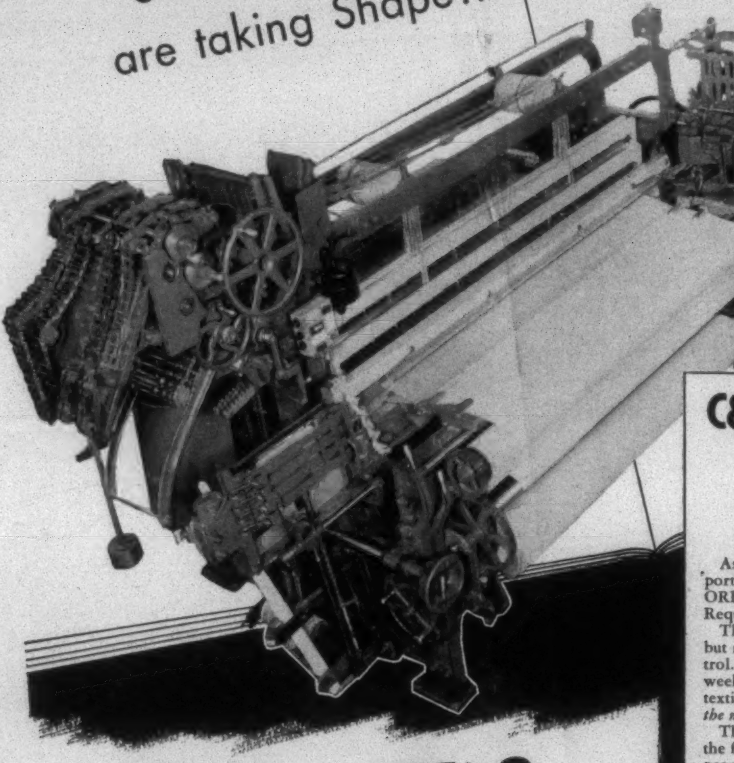
GULF INDUSTRIAL LUBRICATION

The Outstanding Style-Sensations of the FUTURE are taking Shape...

...NOW

on Today's Modern, Miracle-working C&K Looms





W-2...W-3

These two looms are unmatched for versatility in weaving woolens, worsteds, upholsteries and certain blended fabrics. For the W-family's widely varied range of loom-construction features includes: All widths ... 2 x1 ... 4 x 1 ... 4 x 2 ... 4 x 4 ... bobbin changing ... filling mixing ... tri-color ... convertible ... pick and pick ... Knowles head ... jacquard ... friction letoff ... automatic letoff ... multiple beam letoff ... 30" beams ... all purpose takeup ... lower roll takeup ... high roll takeup ... multipliers ... four shuttle sizes ... one-shot lubrication ... roller bearings ... batwing picking ... center filling fork ... electric warp stop motion ... mechanical warp stop motion ... binder release.

C&K's W Looms weave finer fabrics, at higher speed and lower cost ... as witnessed by the labels of leading woolen mills. And whether you weave woolens or sculptured carpets, the same thing can be said of the modern C&K Loom, shown below, which is designed to weave *your* cloth. *See C&K today!*

C&K's "Conference Corner"

As we go to press, we notice that a New York newspaper reports as follows: "INDUSTRY REJECTS EXCESSIVE ORDERS —Big Durable Goods Producers Send Back 'Panic' Requests, Ask They Be Trimmed — Allocations Are Feared."

That's the kind of stampede that leads not only to allocations, but may run far beyond, to government intervention and control. So it is gratifying to read in the textile press, the same week, that while there is definitely "an increased demand for textile machinery, *there is no panic or scare-buying on the part of the mills.*"

This is the safe and sane middle road, both for today and for the foreseeable future. In fact, it is the road of sure and steady progress in weaveroom-modernization, guide-posted by C&K for the last 25 years by this often-expressed principle: "EACH YEAR, REPLACE AT LEAST 10% OF YOUR LEAST EFFICIENT LOOMS."

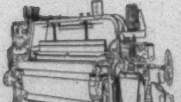
This program is neither too much nor too little, and will help to keep weaving machinery in an even and equable flow of supply to small and large mills alike. Get in touch with C&K today about the looms you need to keep *your* mill competitive.

...and a word about PARTS & SUPPLIES

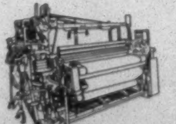
It pays to keep this fact in mind: Interchangeable parts for *all* C&K Looms are available *only* from C&K. And this means *non-stock parts*, as well as the more commonly ordered items which are stocked in anticipation of your orders. It's good business to order all C&K Loom parts direct from the Loom Works. For then you can *always* be sure of getting *anything* you need.

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Woven Fabrics

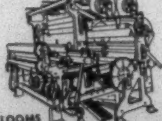
S LOOMS



C LOOMS

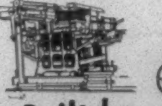


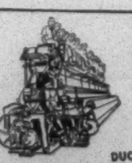
AXMINSTER LOOMS



PLUSH LOOMS

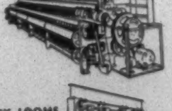
SHEDDING MECHANISMS





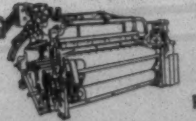
FELT LOOMS

NARROW-FABRIC LOOMS



DUCK LOOMS

W LOOMS



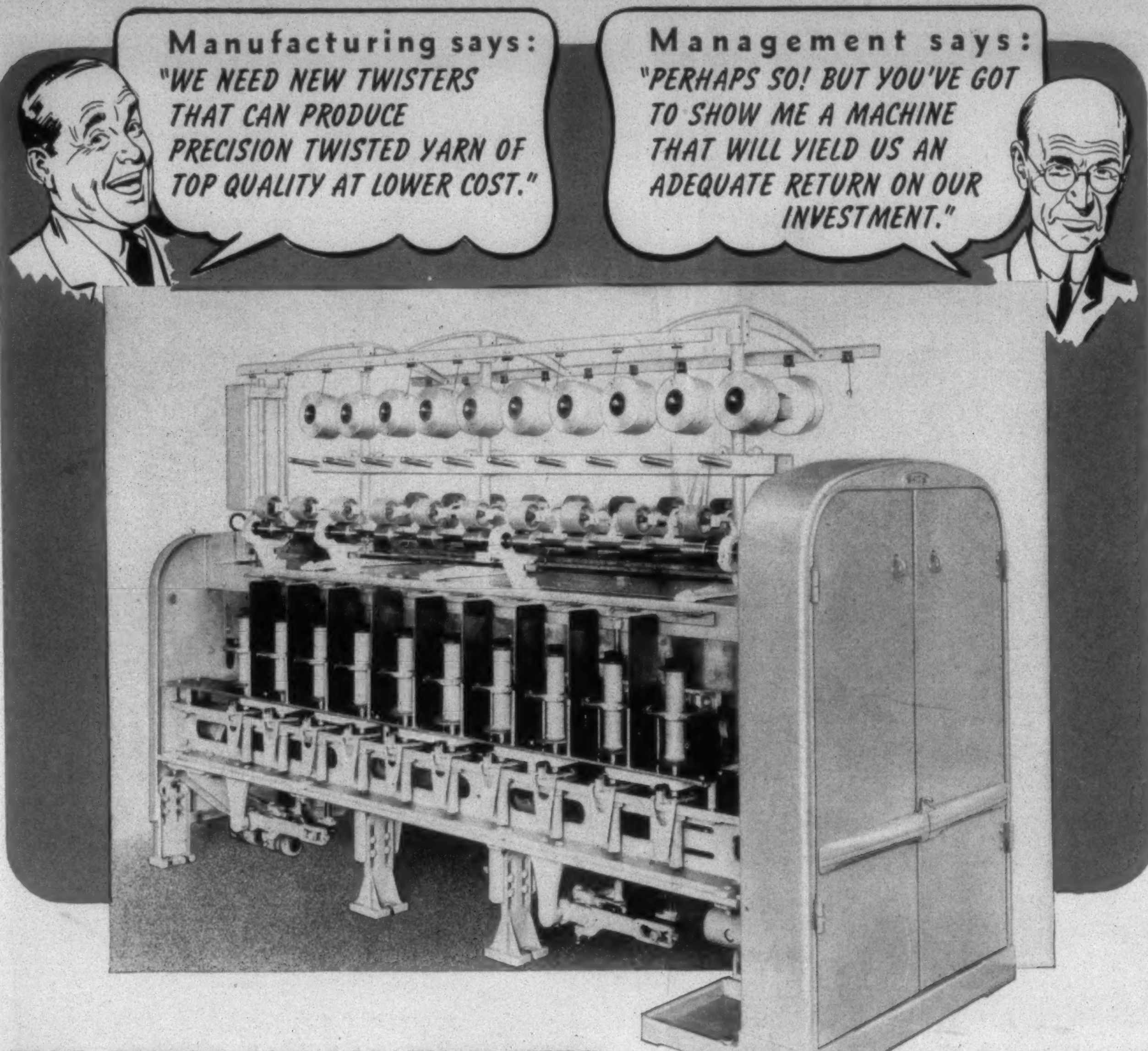
World's Longest Line of Looms... Built by

CROMPTON & KNOWLES LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R.I.

Philadelphia, Pa. • Charlotte, N.C. • Allentown, Pa.


Manufacturing says:
"WE NEED NEW TWISTERS THAT CAN PRODUCE PRECISION TWISTED YARN OF TOP QUALITY AT LOWER COST."
Management says:
"PERHAPS SO! BUT YOU'VE GOT TO SHOW ME A MACHINE THAT WILL YIELD US AN ADEQUATE RETURN ON OUR INVESTMENT."

THE NEW "C6" TWISTER will satisfy BOTH requirements!

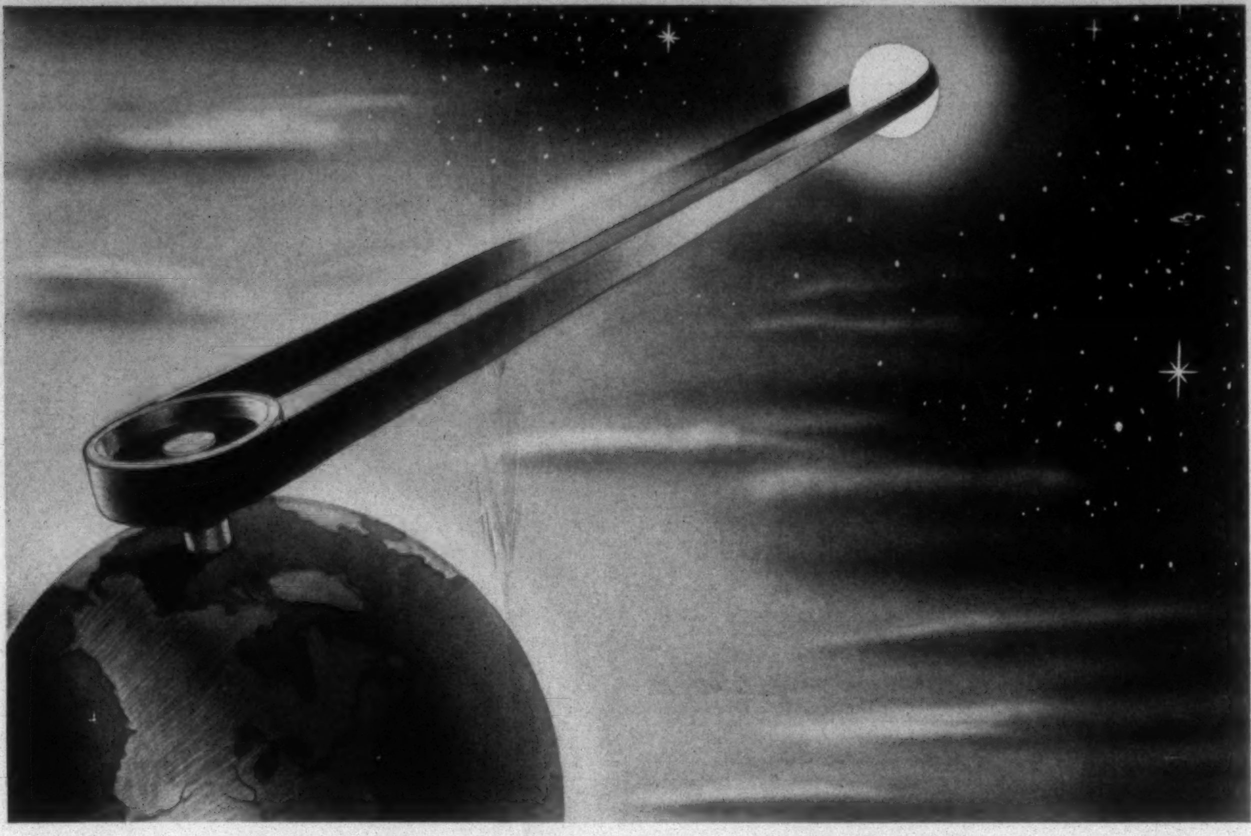
From both the production and financial viewpoints the new Whitin Model "C6" Twister is a sound investment for your mill. Performance tested by the yearly production of millions of pounds of synthetic yarn, it is designed to produce packages up to 4 lbs. with a wide selection of winds produced by Whitin patented builders. Simplicity of operation, plus ease in creeling of supply packages makes this machine popular with operators and management alike.

Write today for illustrated folder giving complete information about the model "C6" Twister and describing its many special features.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.



There's no end to . . .

A GOOD BELT!

Every step in our modern manufacturing process is designed to produce leather belting that is literally endless in form and, as far as possible, endless in performance.

Using the best tanned hides available and up-to-the-minute manufacturing techniques, our expert craftsmen are daily turning out the finest flat leather belting made.

Continuous testing in our research laboratories has provided us with new ways of fitting and cementing laps and joining plys of double belting that result in uniform strength and thickness throughout.

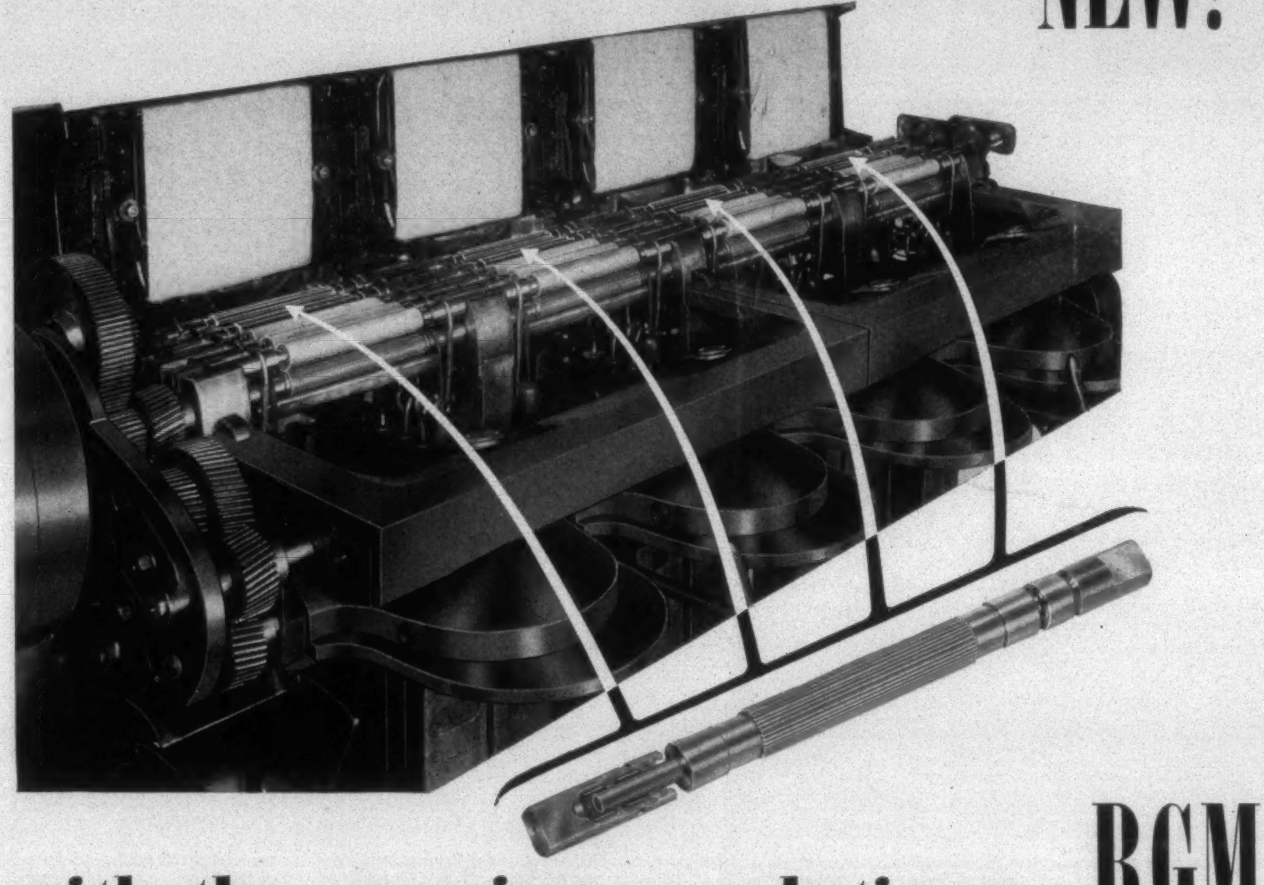
Let us show you WHY "Southern" belting is "endless", why it's BEST.

SOUTHERN *Belting* **COMPANY**

Quality is an old
"SOUTHERN" Custom

236 FORSYTH STREET, S. W. ATLANTA 2, GEORGIA

Make an OLD Drawing Frame better than when NEW!



with the amazing, revolutionary RGM

GOSSETT technicians rebuilt this old frame from one with 4 rolls 6 ends up to one with 5 rolls 8 ends up. The first, second and third line rolls, top and bottom, are common rolls made by Gossett . . . the fourth and fifth line rolls are the amazing, newly developed RGM metallic rolls made by Gossett and which are so hard that even a steel file cannot cut them! The set-up is of graduated pitch flutes.

During the re-building process more things happened to the old Drawing Frame. The top rolls were equipped with Gossett roller bearing shells (there are none better) . . . so this old frame will now draft 8 to 11. Further, we installed new stands, new calender rolls, new tension train of spiral gears and studs, new drafting gears and studs and re-built the coilers, can tackles and installed new trumpets.

Yes . . . it's an old Drawing Frame better now than when new. Takes know-how and equipment. Gossett has both PLUS the amazing and exclusive RGM metallic roll. GOSSETT will also re-build Drawing Frames with the 4-roll system in the same manner.

More About the RGM METALLIC DRAWING ROLL

The flutes and collars have been so hardened by the Gossett exclusive method that even synthetics will not wear them down. The flutes on the RGM roll are so precision made that no tool marks can be found. The tolerance on the flutes, collars and neck is plus or minus .0005.

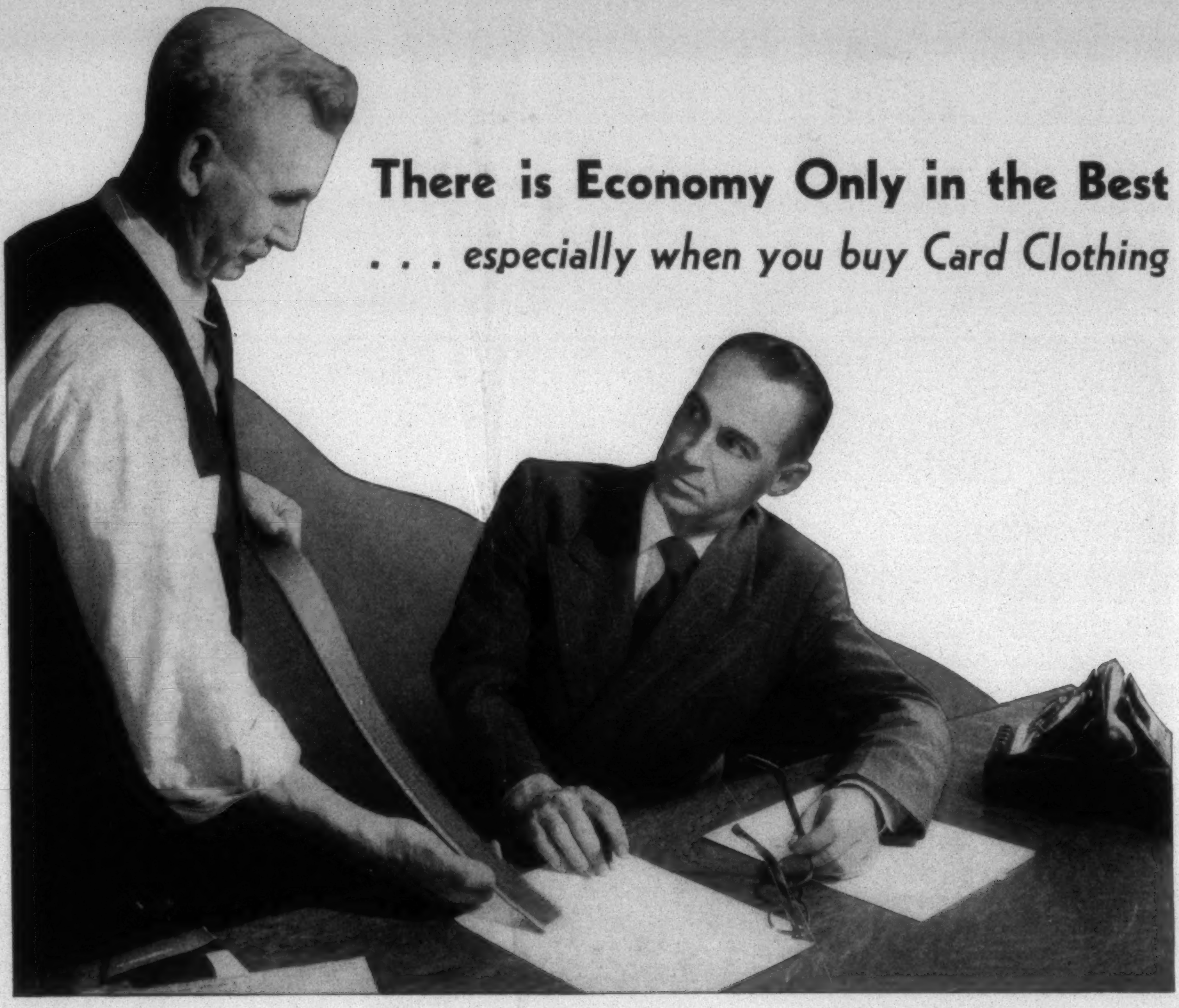
Write for full particulars and estimated cost

B. W. GOSSETT, President
H. A. HAYNES, Southern Representative
E. C. MASON, Sales Manager
D. W. SMITH, N. C.-Va. Representative

GOSSETT MACHINE WORKS, INC.
GASTONIA, NORTH CAROLINA

There is Economy Only in the Best

. . . especially when you buy Card Clothing



Overseer... Nothing is so important to me, Mr. Jones, as having the very best card clothing on our machines. I'll grant you have a large investment in floor space and cards . . . *but the actual work is done by the card clothing.* We must have the best!

Mr. Jones... That's right, Sam—and the difference in cost between the best and second best card clothing is very small compared to our total outlay.

Overseer... And using the best makes a whale of a difference in operating efficiency and return on your total investment. That's why I'm for TUFFER CARD CLOTHING every time. It's the most uniform and most accurate card clothing we can use . . . and it keeps carding costs down where they should be!

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada* A-2

TUFFER
CARD CLOTHING

IMPROVES PRODUCTION ALL ALONG THE LINE

The Handsomest Team in the Stadium

Look what's come out of the north to dress up the 50-yard line. It's that old reliable the storm coat . . . all decked out with new color, style and good looks!

Why the transformation?

Coat manufacturers searching for ways to smarten up their product turned to rayon. In cooperation with Avisco textile experts they have devised cavalry twill and gabardine constructions that score high in all the characteristics demanded by quality outerwear.

Smooth as a completed pass, rugged as a center smash, these materials tailor faultlessly . . . their deep-lustrous colors contrast handsomely with rich mouton collars. They're tightly woven to withstand the coldest wind that ever blew through the bleachers. They take water repellent finishes perfectly.

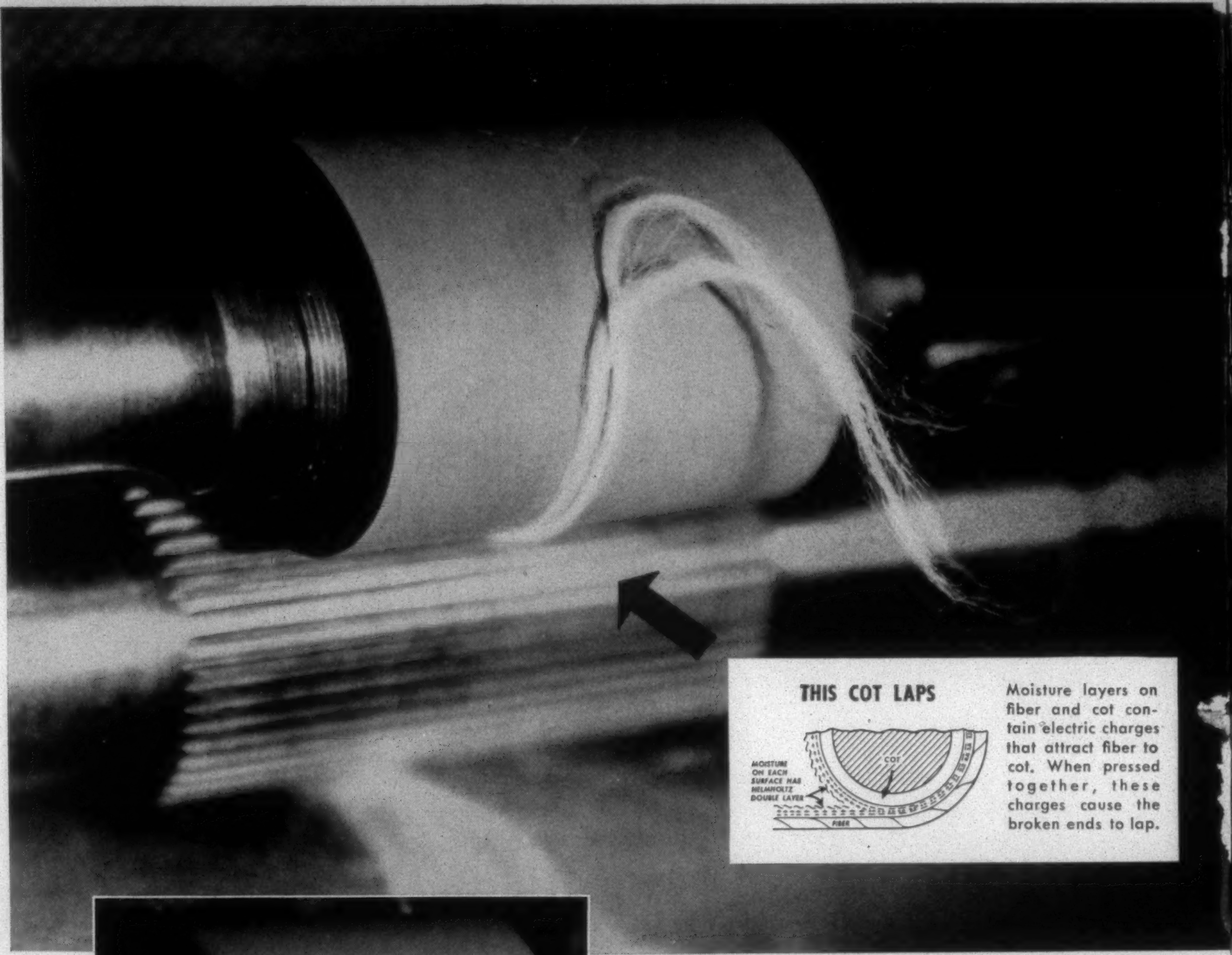
These useful coats are being featured at your favorite shop right now. Investigate their good looks and reasonable price. And get set for comfort that's casually correct not only for November, but all winter long! American Viscose Corporation, 350 Fifth Avenue, New York 1, N. Y.

THE SWING TO RAYON for outer wear constructions is emphasized in the Avisco October advertisement, appearing in Time Magazine and the New Yorker. It is a part of a continuing program designed to inform opinion leaders of developments in rayon. Advertisements like this benefit not only Avisco but the entire textile industry by helping to accelerate consumer acceptance for new products.

Avisco®

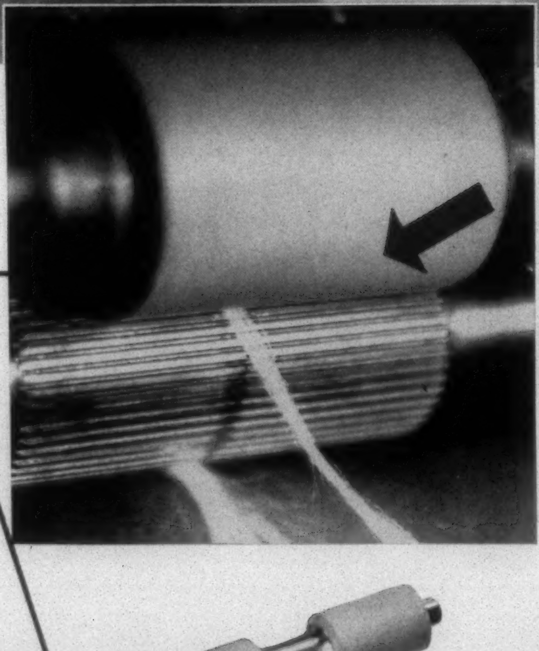
AMERICAN VISCOSE CORPORATION

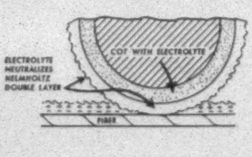
AMERICA'S LARGEST PRODUCER OF RAYON



THIS COT LAPS

Moisture layers on fiber and cot contain electric charges that attract fiber to cot. When pressed together, these charges cause the broken ends to lap.



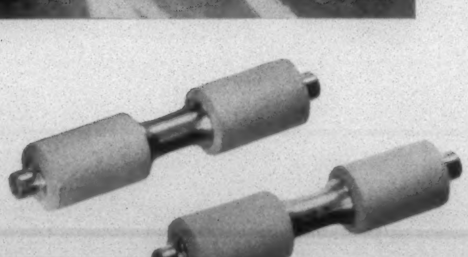


THIS COT DOESN'T LAP

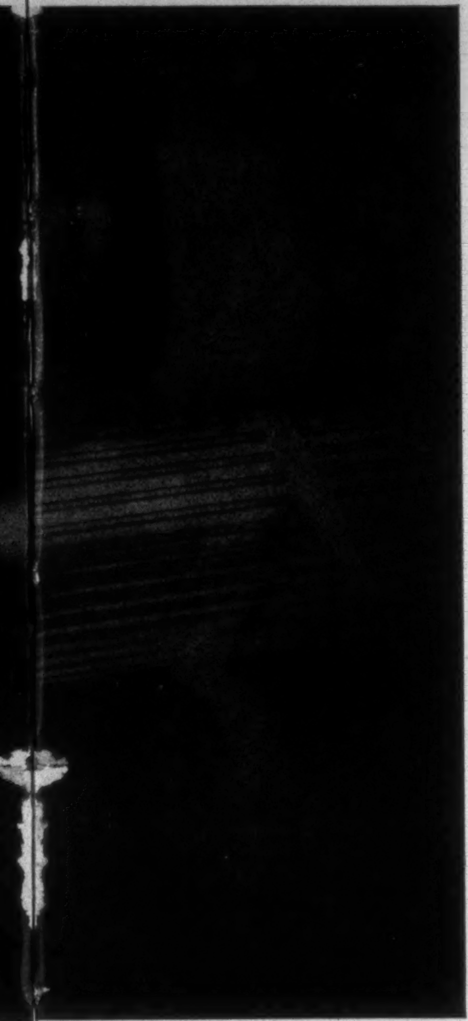
Electrolyte in patented Accotex rubber neutralizes the electric charges. This action eliminates the attraction of fiber to cot and prevents lapping.

These two Accotex Cots handle most

In most mills, Armstrong's general purpose roll covering, NC-727 Accotex, will satisfy every spinning need. This synthetic cot has good lap resistance and minimizes eyebrowing. Where lapping is an especially severe problem, J-490 Accotex Cots are recommended. In addition to the patented electrolyte feature, these cots provide an extra smooth surface that further inhibits lapping.



ACCOTEX COTS
CORK COTS



Most lapping can be prevented

Patented Accotex formulation eliminates basic cause of lapping

Mill men all over the country report, "Lapping is no problem on frames equipped with Armstrong's Accotex® Cots." Here's the scientific reason why.

Accotex Cots include certain materials called electrolytes. This patented formulation eliminates a basic cause of lapping—the electrical attraction between cot and fiber. Actually, it tends to repel broken ends. The diagrams and photographs shown on the left illustrate just how Accotex Cots do this.

Special formulation gives Accotex Cots other desirable spinning qualities, too. Built-in durability enables these cots to give five to six years of front line spinning with most yarns. Lasting resilience prevents flattening and flute marks during shutdown periods. In short, Accotex Cots are made to give trouble-free service with a minimum of attention.

The only maintenance that's needed with Accotex is an occasional quick buffing. Replacement is just as easy. Because Accotex Cots are seamless, pre-glued, and made to the size of your rolls, they can be assembled in one simple operation.

All cots in the Accotex family offer lap resistance, long life, and easy maintenance. Certain types, however, may offer specific advantages for your mill. We suggest that you contact your Armstrong representative. He can arrange a test installation of the Accotex Cot best suited to your operation. Write Armstrong Cork Company, Textile Products Department, 8210 Arch St., Lancaster, Pennsylvania. Accotex Cots are available for export.

of your roll covering needs

Whether you are spinning cotton, wool, or synthetics, Armstrong can supply you with an Accotex Roll Cover especially formulated for the job. Call your Armstrong representative today and ask him to arrange a test installation of the Accotex Cot best suited to your spinning needs.

ARMSTRONG'S ACCOTEX COTS

Strange Patent Case

PERHAPS the most dangerous attacks against the patent system have come from the anti-trust division of the Department of Justice. A typical example of how the anti-trust division is seeking constantly to destroy the patent system follows. The Corning Glass Works brought out a new basic product called fiberglas. It was to be manufactured by the Owens-Corning Fiberglas Corp. Affiliate corporations apparently were licensed to produce fiberglas. No other licenses were issued. The Department of Justice brought suit under the anti-trust laws. It named the Owens-Corning Fiberglas Corp. and Owens-Illinois Glass Co., both of Toledo, Ohio, and the Corning Glass Works of Corning, N. Y., as defendants.

For reasons that are not entirely clear, officers of the defendants consented to judgment, just as officers of other defendants in similar cases have done before them. Judge Frank L. Kloeb in the Federal Court at Toledo rendered the consent decree. According to the official news release sent out by the Department of Justice it required "the defendant Owens-Corning to license any applicant, on a royalty-free basis, 200 patents relating to the manufacture of glass fibers and glass fiber products and to license on a reasonable royalty basis 60 other patents. In addition, Owens-Corning is directed to license, for reasonable royalties, all patents which may be issued to it or acquired by it within the next five years." Why losses involved in such divestitures could be imposed upon stockholders is not apparent from the record.

Concerning this judgment, Herbert A. Bergson of the anti-trust division is quoted as saying, "THE FIBER GLASS INDUSTRY IS A SIGNIFICANT NEW INDUSTRY which has, from its very start, been monoplized by the defendant companies. This judgment is intended to dissipate the monopoly and to AFFORD A REAL OPPORTUNITY FOR NEW PRODUCERS TO ENTER THE FIELD. THE JUDGMENT NOT ONLY OPENS UP THE DEFENDANTS' PATENT RIGHTS IN THIS INDUSTRY BUT IN ADDITION MAKES AVAILABLE THE TECHNOLOGY OF THE DEFENDANTS TO ANYONE WHO WISHES TO ENTER THE FIELD." Will new job-making industries induced by promise of patent protection continue to be developed if regularly torn apart by devices at the command of government prosecutors? To what extent is the F.B.I., under Department of Justice direction, a factor in these startling consent decrees?

There are now 151 anti-trust suits pending. There were only 126 anti-trust cases pending six months ago and the rate at which these suits are being filed is increasing every day.—*Patent Research Reports.*

Dollars Make Poor Eating

IN America today, we are surrendering our basic liberties. The complexity of the daily affairs of 150 million Americans baffle us. Perhaps we can more clearly appraise the danger of economic suicide under the "welfare state" if we think in terms of our own small group.

Imagine, if you can, that we are the only survivors of a thoroughly destructive hydrogen bomb explosion. Gone are our factories, offices, and homes. Every product of civilization has been reduced to the natural state which prevailed when Adam first set foot on earth. How shall we proceed under these conditions to solve the problem of survival?

We know, of course, that we must put our minds and our hands to producing food, clothing, shelter — the things we use in our daily living. Represented here in this pile are the raw materials — wood, soils, ore, rocks — from which we may produce finished consumer goods. If each of us were to attack this pile of materials molding them into finished goods, we could soon demonstrate to our own satisfaction that the supply of finished goods depends entirely upon how hard and how long and how efficient we work. The more finished goods a person produces, the more there is for him to eat, wear, and enjoy. By hard work, our standard of living can improve; there is no other way.

We know, also, that we face a problem of distribution of these finished goods among ourselves, once they have been produced. Shall each of us retain what he produces for use or exchange or disposal according to his own choice? Or is there a better system?

Few persons enjoy work. Some downright abhor it, and they envy the hard workers who are enjoying a better and better living, and who by saving some of it, have more and more. Suppose these drones call a meeting. Since it is mainly their kind who would attend the meeting, while the others are working, they might vote—in a purely democratic way, among those present —to set a limit of 32 hours of work per week, and to compel a minimum wage of $100 per week. And they might also vote unemployment benefits of $98 a week, and vote every citizen a $200 per month pension beginning at age 45. "Why wait," they would argue, "to enjoy old age until you're old?" All payments would be made in paper money, which they would make the legal and lawful currency.

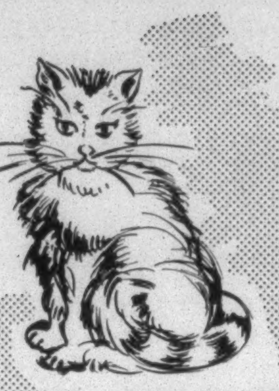
Under this plan it would be necessary for some of the workers to watch the other workers, and see that they don't do too much work, or accept pay below the legal minimum, or retire too late; and some must handle the pension scheme. The remaining producers will discover the futility of their efforts under these conditions, and the pile of goods will dwindle toward nothing. Why work to produce more if the results of your efforts are taken from you against your will?

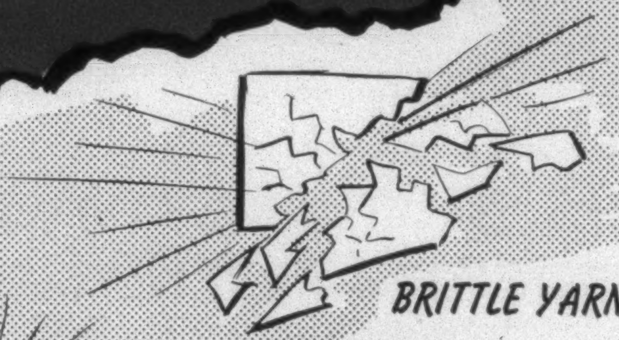
Despite little or no production, leaving the pile of wood and soil and rocks untouched, the unemployed and the pensioners could continue to get their weekly checks just the same. They would receive pieces of paper on which the dollar sign is printed, offered with the kindly words: "There you are, my good man; use this to buy things you need to eat, wear, amuse yourself—in fact, do anything you wish with it."—*Opp-Micolas News.*

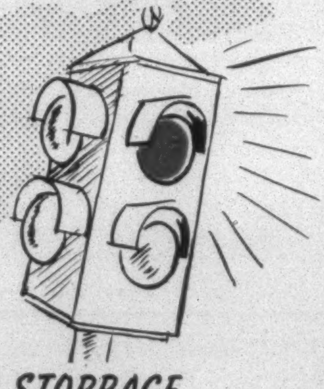
Textile Museum

GREENVILLE should have a textile museum. Our city is, literally, the textile center of the South and the South is rapidly becoming the textile region of the country. More than 80 per cent of the nation's cotton cloth is manufactured in South Carolina, most of it in the Greenville area. What is more natural than for Greenville to use its principal industry as an attrac-

WHATEVER YOUR COTTON SIZING PROBLEM







Caro-Gant

REG. U. S. PAT. OFF.

WILL SOLVE IT!

No matter what your slashing room problem, the answer is Caro-Gant—the modern, scientific warp dressing. You can eliminate soft warps, brittle yarns, excessive shedding, unnecessary loom stoppage and profit reducing seconds with Caro-Gant—the perfect sizing.

Caro-Gant, the original 100% active warp dressing, contains no water or metallic salts. It is economical because one (1) barrel of Caro-Gant does the work of three (3) barrels of ordinary sizing. In addition, it prolongs the life of slasher blankets and insures minimum shedding and high weaving efficiency. Caro-Gant is the standby of leading mills everywhere.

THE HART PRODUCTS CORPORATION · 1440 Broadway, New York 18, N. Y.

Hartex Products:

- Rayon Oils & Sizes
- Nylon Oils & Sizes
- Kier Bleaching Oils
- Finishing Oils
- Synthetic Detergents
- Conditioning Agents
- Scrooping Agents
- Splashproof Compounds
- Delustrants
- Leveling Agents
- Cationic Softeners
- Cotton Warp Dressings
- Wetting-Out Agents
- Weighting Agents
- Mercerizing Penetrants

Hart Products

based on research

tion for tourists? Here are a few of the things we think such a museum should include: A history of the textile industry, told with pictures and exhibits. The complete story of the manufacture of a bolt of cloth, from the cottonseed to the finishing process, told, again, with pictures and exhibits. Exhibits of every type of textile machinery.

Would tourists be interested in such a museum? We know they would, because we know we would be interested and we believe every Greenvillian would be interested—and what interests us should interest tourists. Furthermore, everyone who has entertained out-of-town visitors knows they are interested in seeing our textile mills.

The textile industry should jump at the project, for it would benefit both directly and indirectly. The textile industry is becoming more and more conscious of the value of good public relations and, as it appears to us now, the textile museum would be a splendid opportunity to influence public opinion.

We do not have in mind a museum dedicated to the cotton textile industry alone, although the story of cotton is the biggest story we have to tell. South Carolina is making many other fabrics now, from woolens to the latest synthetics. There should be a place in our museum for all of them.

The foundation of the museum should be its dedication to the textile industry. It should perpetuate the memory of men like the late Joseph E. Sirrine, and those now living, who left and are leaving their contributions to the Piedmont section of South Carolina.—*Greenville* (S. C.) *Piedmont.*

Hidden Diabetes

UNTREATED diabetes can be a very costly chronic illness, both to the individuals involved and to the businesses and industries where they work. Persons suffering from undiagnosed cases of the disease are likely to be habitually unwell. Their efficiency is greatly reduced, and frequently they are unable to work at all. *This need not be the case.* Most diabetics whose condition is known and who are under medical care can continue with their normal occupations. Only in a few cases may it prove necessary to shift a diabetic to less hazardous tasks. In almost every case the known diabetic can remain a useful member of society and not become a charge against his family, his employer, or the state.

That undiagnosed diabetes is of real importance to every business and industrial organization in the nation is evidenced by the known facts about the extent of the problem. Surveys have shown that there are at least a million hidden diabetics in the United States. Another two million people are likely to develop diabetes as they grow older. Obviously, therefore, the disease is one which should cause concern to every employer interested in the morale of his employees and in the efficiency of his operations.

Diabetes is a chronic disease which definitely can be controlled by careful treatment and supervision by a physician. For this reason the medical profession has long felt a responsibility for the detection and treatment of the undiagnosed diabetic. The American Diabetes Association, composed of practicing and research physicians, was originally organized as a research and information group for the dissemination of data about the disease to the profession. With the formation of a special Diabetes Detection Committee in 1948, the association assumed the additional function of organizing, directing, *and financing within their own group,* a continuing national Diabetes Detection Drive, spearheaded annually by Diabetes Week. This year, Diabetes Week is scheduled for Nov. 12 through 18. Last year's campaign uncovered approximately 7,500 hidden diabetics throughout the country — a remarkable record for a program only in its second year of activity. It is expected that this year's campaign, with the new approval of self-testing by the A.M.A. and with much wider co-operation by business and industry in the drive, will greatly improve on last year's record.

Because of the costs in ill health and lowered efficiency to the individual, and in decreased operating effectiveness to the employer, we of the American Diabetes Association feel that all business and industrial executives should share our eagerness to detect as many hidden diabetics as possible.

When a representative of the local Diabetes Association or medical society asks you to co-operate in conducting a diabetes detection drive among your employees, try to assist him in every way you can. A successful drive will not only assure you that undiscovered diabetics on your payroll are placed under treatment, but also that possible workmen's compensation payments and other types of economic drain resulting from chronic illness among your employes will be greatly reduced, insofar as such illness is caused by hidden, untreated diabetes.

It is also important that your employees know why they are being asked to undergo a test for the presence of diabetes. The American Diabetes Association's national office, 11 West 42nd Street, New York, N. Y., has prepared a special article, directed to individual employees, which is designed for use in company publications. Published in such outlets, the article will make acceptance of the diabetes detection drive by your employees very much easier since they will have learned for themselves why it is so important that they undergo the test. Copies of this special article may be obtained upon application to the association's New York office.—*Leslie J. Palmer,* President, American Diabetes Association.

Did You Say Green?

HAVE you ever wondered whether the grass actually is greener on the other side of the fence? And did you ever get into a hot discussion with a fellow worker as to whose job was more important around the plant? Well, it seems that the captain and the chief engineer of a ship got into such an argument, and they decided that the only way to settle it would be to exchange jobs for a spell.

So, the skipper went down into the hold to supervise the steam boilers, and the engineroom chief went up to the bridge to navigate the vessel. The captain fiddled around the steam valves and gauges, getting hotter and sweatier and sootier with each hour—but to no good. Finally he gave up in disgust, and started up the iron stairs for the open decks.

Half way up he met the chief engineer, coming down. "Take over your engineroom, matey," said the skipper. "I just don't seem to be able to get up enough steam for those boilers, and keep it up."

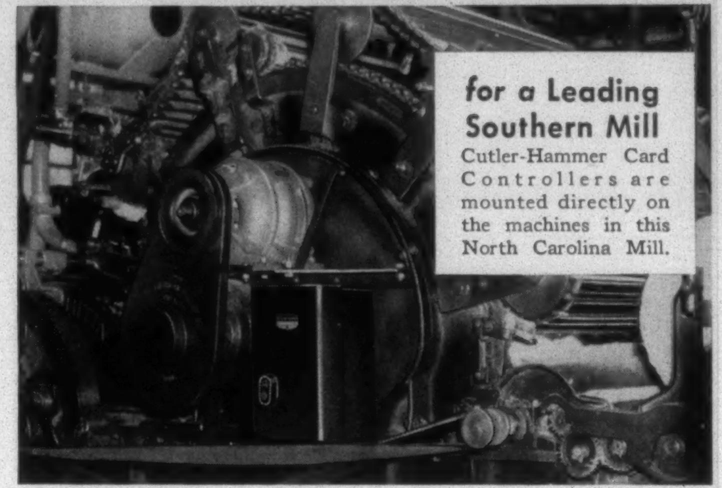
The chief engineer grinned. "Well, it doesn't matter anyway, skipper," he said. "We've been aground for two hours!"

So if you think the other fellow's job is a lot easier or not nearly as important as yours, just remember the skipper and the engineer. — *Graniteville Bulletin.*

CUTLER-HAMMER

MOTOR CONTROL FOR THE TEXTILE INDUSTRY

for Amoskeag-Lawrence.
The Amory Mill at Manchester, N. H., uses Cutler-Hammer Combination Starters on these cone reducers.



for a Leading Southern Mill
Cutler-Hammer Card Controllers are mounted directly on the machines in this North Carolina Mill.

One question that answers itself

No responsible textile mill executive will decide the question "*What* motor control?" except in the light of *one fact*. And that is the fact that *profitable* textile production results from the integration of many machines into a single harmonious production unit. The need for such integration spells out the answer to the question right there. For this integration certainly calls for the *best* motor control engineering experience available . . . certainly calls for the *most competent* motor control design and construction available . . . certainly calls for a *proved dependability* in motor control performance. There is only one make of motor control that meets all these specifications, the product of the pioneering specialists in motor control since 1892. CUTLER-HAMMER, Inc., 1455 St. Paul Avenue, Milwaukee 1, Wisconsin.

CUTLER·HAMMER
MOTOR CONTROL
C·H

for Springs Cotton Mills
at Kershaw, S. C., plant. Cutler-Hammer Loom Switches for each group of 10 looms are here mounted in single enclosures on adjacent building columns above mill traffic. Note also single combination starter installed ahead of each group.

CUTLER-HAMMER LOOM SWITCH

for fewer shutdowns, greater production, easier maintenance

Pushbutton operation—most preferred for this type of starter. Stop button can be padlocked.

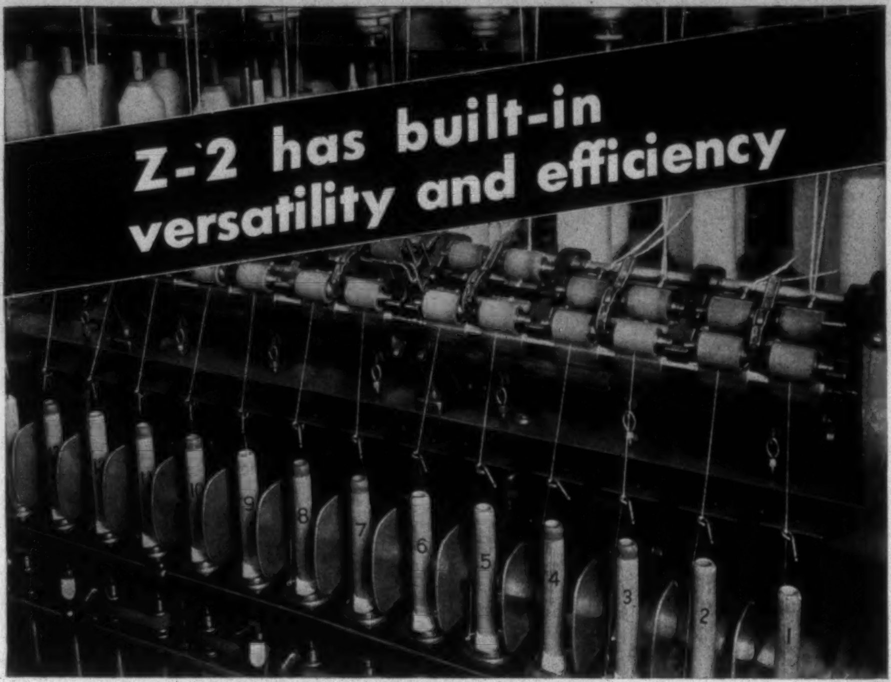
Stronger, smaller, drawn steel case. Unique welded-steel mounting pedestal available to create a *complete* assembly with unparalleled resistance to mechanical damage.

Lint-proof enclosure—close fitting cover (even around pushbutton well) limits entrance of lint and dust.

Service proven, positive make, quick break operating mechanism built on *steel* framework.

"Out in the open" contacts for quicker inspection and easy renewal *on the job*. Most dependable overload protection—famous Cutler-Hammer eutectic element type—prevents unnecessary shutdowns without sacrifice of *positive* motor protection.

Vibration resistant. Mechanism "floats" in truly effective *live* rubber mounting bushings.



Running 8 stocks simultaneously on 13 spindles.

SPINDLES 1 *and* 2
1⅛" combed Peeler

SPINDLES 3 *and* 4
50% cut wool top 1½" staple
50% 3 denier viscose 1½" staple

SPINDLES 5 *and* 6
50% 3 denier viscose 2" staple
50% 3 denier acetate 2" staple

SPINDLES 7 *and* 8
100% 3 denier Celanese 2" staple

SPINDLE 9
30% 3 denier nylon 3" staple
70% 64's wool

SPINDLE 10
50% 3 denier nylon 3" staple
50% 3 denier viscose 2½" staple

SPINDLES 11 *and* 12
50% 3 denier viscose 2½" staple
50% 3 denier acetate 2½" staple

SPINDLE 13
100% 64's wool top

For these mills

the adoption of the Saco-Lowell Z System eliminates costly trials and experiments. The inherent flexibility and effective fibre control will facilitate the production of good yarns from any commercial blend known today, with satisfaction and efficiency in operating conditions.

Style shifts and consumer trends create no production obstacle for those mills having Saco-Lowell Model Z Spinning.

Abbeville Mills Corporation

Brighton Mills, Inc.

Burlington Mills Corp. Cordova

Burlington Mills Corp. Ranlo

Celanese-Lanese Corp.

Glen Raven Cotton Mills

Greenwood Mills Mathews Plant

Mooresville Mills

Wachusett Spinning Mills, Inc.

Waumbec Mills Inc.

In addition to being time-tested and mill proven this system is

- **Simple in design**
- **Sturdy in construction**
- **Flexible in use**
- **Easy to clean**
- **Without complicated parts**
- **Easy to install as "changeovers" on present equipment**

For processing Synthetics and Blends, Saco-Lowell can furnish the entire range of equipment from Opening and Picking through Twisting.

Our Engineers will be glad to survey your requirements upon request.

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD, MAINE *and* SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA

textile bulletin

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David Clark	*President and Editor*
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James T. McAden, Jr.	*Editorial Director*
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Andrew Hewitt	*Assistant Editor*
F. R. Carey (P. O. Box 133—Providence, R. I.—Telephone Williams 3957)	*Vice-President and Eastern Manager*
R. J. Shinn	*Field Advertising Representative*
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The 16th Southern Textile Exposition

The 16th Southern Textile Exposition held at Greenville, S. C., Oct. 2 to 7, inclusive, was acclaimed the best in the long history of these events.

In diversity of products shown, the 1950 S.T.E. undoubtedly surpassed previous Southern shows and the exhibitors are to be congratulated on the attractiveness of their displays. Every inch of available floor space was sold and there was a waiting list of approximately 35 manufacturers who had applied for space.

The attendance was remarkable and included almost every prominent textile manufacturer in the South and went all the day down to doffers and sweepers.

The fact that hundreds of loom fixers, weavers, spinners, doffers and mill employees at those levels drove all the way to a textile machinery and supply exposition at Greenville in order to see the latest equipment speaks well for the future of the textile industry of the South.

When employees in the lower levels are interested in machines for improving the operation of mills, we feel that the industry is in safe hands.

Aside from the remarkable attendance, the thing which impressed us most was the smoothness with which the affairs of the exposition were handled and the almost entire absence of complaints by exhibitors and visitors.

In that respect much credit can be given to the secretary, Miss Bertha Green, and to James H. Woodside, assistant to the president, who together supervised all details and who maintained a courteous attitude at all times.

President W. G. Sirrine was around much of the time but due to ill health he had to leave most of the details in the very capable hands of Miss Green and Mr. Woodside.

Citizens of Greenville fully maintained the reputation they acquired at the first Southern Textile Exposition for hospitality and being always ready to look after the needs of visitors.

It was unfortunate that the hotels, and even the motor courts, took advantage of the situation to charge much above their usual rates.

The management of the exposition, the Greenville Chamber of Commerce and most of the citizens of Greenville were opposed to anyone charging above the usual rates but there was no way in which they could control the charges for rooms and food, and they are not to be blamed.

Other than the advanced charges for rooms, we heard no exhibitor or visitor make any complaint.

The 16th Southern Textile Exposition was a very distinct success.

Fought To The Last Ditch

Senator Frank P. Graham has cast his last vote in the United States Senate and it is significant that even in his last senatorial gasp he was fighting for the Communists and opposing the McCarran Anti-Communist Bill; in fact, he has announced his intention of lobbying for its repeal at the post-election session of Congress.

Although Senator Graham had condemned the filibuster as a means of preventing the enactment of an F.E.P.C. law and refused to join other Southern senators in that effort, he completely reversed his position and joined a filibuster against allowing his beloved Communists to have their activities controlled

In spite of the many denials, the fact is that Frank P. Graham has been closely affiliated with Communists and Communistic movements for many years.

We challenged anyone to deny that Frank P. Graham gave active support to the Communists in Spain. We charge that he gave them money from his own pocket, raised money for them and actually used his influence to send American young men to Spain to fight for the Communists. He took the lead in trying to get the embargo lifted so that American arms might reach the Spanish Communists.

Senator Clyde R. Hoey of North Carolina, who voted *for* the McCarran Anti-Communist Bill, said in a recent address at Greensboro, N. C.:

> It serves notice to the world that while we are fighting Communism abroad we will not permit it to infiltrate into and undermine our institutions at home. If the public would read the bill itself instead of the left wingist criticism, it would find there are no dangerous provisions whatsoever.

Senator Hoey's explanation of the bill also explains why Senator Frank Graham voted against it.

Frank Graham has fortunately cast his last vote in the Senate and as time goes on the people of North Carolina will feel more and more that they were wise in defeating him for re-election.

Gordon Gray, who was on Oct. 10 inaugurated as president of the University of North Carolina, gave the following as the two first planks in his administration platform:

1. The United States must continue its leadership in the world's fight against Communism, but must not over-commit itself.

2. The Consolidated University will not furnish asylum to reds and fellow travelers.

Gross Misrepresentations

During every Southern Textile Exposition week the Rotary Club of Greenville, S. C., knowing that there will be many visiting Rotarians, including quite a few from the North, always tries to hold an interesting meeting and has always succeeded in the past.

At the meeting on Oct. 3 the speaker was Dr. Nicholas

Mitchell, associate editor of the *Greenville News* and a former professor at Furman University. The use of the word "former" is very much to the credit of Furman University.

Because there were many men present from New England and other points in the North, we feel that we should advise them that Dr. Mitchell grossly misrepresented the people of the South and their attitude; in fact, most of his observations were based upon his own wild-eyed personal views and his ideas of the South he would like to see, rather than upon any existing facts.

His statements about race hatred in the South and the antagonism between capital and labor are products of his own imagination.

The whites and Negroes of the South live under remarkably friendly relations and it is unfortunate and untrue to hear it said that race hatred exists to any marked extent. The truth is that race hatred is almost unknown. The whites and most of the Negroes prefer the present policy of segregation and it promotes the friendly feeling which exists.

Likewise it is untrue to say that there is antagonism between labor and capital.

About ten per cent of the textile mill employees are unionized and, while there is an occasional strike fomented by union organizers, most of whom come from the North, even in such mills there is usually a friendly feeling between the employees and the management.

Nowhere in the United States do such friendly relations exist as between the employees and the employers in the South.

The statement about the whites and blacks of the South fighting over the distribution of scarcity is not only absolutely untrue but so absurd as to be laughable.

Dr. Mitchell was introduced as a native of Texas but we doubt that statement, because the great state of Texas does not usually breed cattle of his kind.

If Dr. Mitchell had simply said that he favored social equality between whites and Negroes and was opposed to States Rights, as written into the Bill of Rights by our forefathers, and then sat down he would have said all that he said in his address other than to slander and misrepresent the people of the South.

If Joe Stalin receives a copy of the address by Dr. Nicholas P. Mitchell he will certainly enter his name in his book of friends.

TEXTILE INDUSTRY SCHEDULE

— 1950 —

Oct. 26-27—Annual convention, **CARDED YARN ASSOCIATION**, Carolina Hotel, Pinehurst.

Oct. 28—**PIEDMONT SECTION, A.A.T.C.C.**, Charlotte Hotel, Charlotte, N. C.

Oct. 28—Carding and spinning meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES**, Langdon Hall, Alabama Polytechnical Institute, Auburn.

Nov. 4—**SOUTH CENTRAL SECTION, A.A.T.C.C.**, Hotel Patten, Chattanooga, Tenn.

Nov. 4—**SOUTH CAROLINA DIVISION, S.T.A.**, Clemson (S. C.) College School of Textiles.

Nov. 11—**EASTERN CAROLINA DIVISION, S.T.A.**, Erwin Mills Auditorium, Durham, N. C.

Nov. 16-17—Annual meeting, **TEXTILE RESEARCH INSTITUTE**, Waldorf-Astoria Hotel, New York City.

Nov. 17-18—Alumni conclave, **NORTH CAROLINA STATE COLLEGE SCHOOL OF TEXTILE**, Raleigh.

Nov. 26-Dec. 1—Textile division, **A.S.M.E.** (one-day session in conjunction with parent society's annual meeting), New York City.

Nov. 27-Dec. 2—**NATIONAL EXPOSITION OF POWER AND MECHANICAL ENGINEERING**, Grand Central Palace, New York City.

Dec. 2—**PIEDMONT DIVISION, S.T.A.**, Fireman's Hall, East Seventh St. (U. S. 74-A), Charlotte, N. C.

Dec. 9—**SOUTHEASTERN SECTION, A.A.T.C.C.**, Atlanta, Ga.

— 1951 —

Jan. 15-18—**PLANT MAINTENANCE SHOW AND CONFERENCE**, Cleveland (Ohio) Auditorium.

Jan. 22-24—Annual meeting, **NATIONAL COTTON COUNCIL**, Hotel Buena Vista, Biloxi, Miss.

March 5-9—Spring meeting and committee week, **A.S.T.M.**, Cincinnati, O.

March 29-31—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Greenbrier Hotel, White Sulphur Springs, W. Va.

April 29-May 5—**NATIONAL COTTON WEEK.**

April 30-May 4—**MATERIALS HANDLING EXPOSITION**, International Amphitheatre, Chicago, Ill.

June 18-22—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Atlantic City, N. J.

June 21-23—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Mayview Manor, Blowing Rock, N. C.

Sept. 17-18—Annual national convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS**, Statler Hotel, New York City.

— 1952 —

March 3-7—Spring meeting and committee week, **A.S.T.M.**, Cleveland, O.

June 23-27—Annual meeting, **A.S.T.M.**, New York City.

Textile School Conclave

In our August issue we mentioned that a School of Textiles Conclave would be held at North Carolina State College on Nov. 17-18 and when Prof. G. H. Dunlap was at the Southern Textile Exposition he stated that it now appeared that it would go over big and that there would be an attendance of 200 to 300.

The objectives of the School of Textiles Conclave, which is to be an annual affair, are several.

In a way it is to be a refresher course for former students of the School of Textiles.

An exchange of ideas both in and out of the sessions will be very beneficial.

The extension of acquaintances between men who attended the School of Textiles at different periods should prove valuable.

The following is an outline of the program:

Friday, Nov. 17:
- 10:30 A. M.—Meeting in the assembly room in the School of Textiles.
- 12:30 P. M.—Buffet lunch at the School of Textiles.
- 2 P. M.—Second meeting in assembly room.
- 7 P. M.—Banquet with some distinguished textile authority as speaker.

Saturday, Nov. 18:
- 9:30 A. M.—Third session in assembly room.
- 2:30 P. M.—Football game—State vs. Wake Forest at Wake Forest.

One session will be devoted to presentation of latest developments in the field of textile manufacturing.

Another session will be devoted to an exchange of ideas by graduates.

A special session will be devoted to the results of research now being done in the School of Textiles as a part of a project devoted to elimination of neps.

Attendance will be limited to graduates or former students of the School of Textiles but former engineering students of North Carolina State College who are engaged in business which deal with textile mills will be welcome.

We believe that the Annual Conclave of the School of Textiles at North Carolina State College will become an established event which no graduate or former student can afford to miss.

Profitable Fabrics

THE PRODUCT OF EFFICIENT LOOMS

YOU'LL REALIZE far greater profits from looms modernized the Wilson way. Wilson's method of rebuilding looms on the mill's floor saves time and money in freight charges, removal costs, and production delays. Wilson engineers make a complete final check of every rebuilt loom, with testing and careful adjustments after warps have been tied in. Wilson rebuilt looms are guaranteed to meet your specifications. They are modern, efficient units, ready to produce profitable fabrics.

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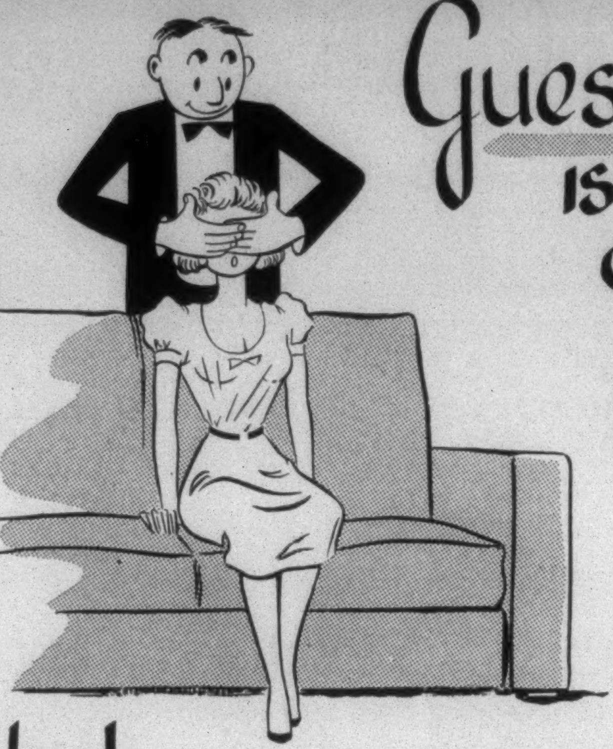
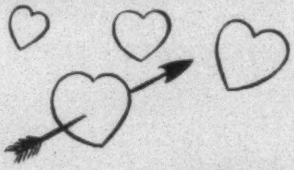


Guess Who?

IS A FINE GAME FOR

LOVERS

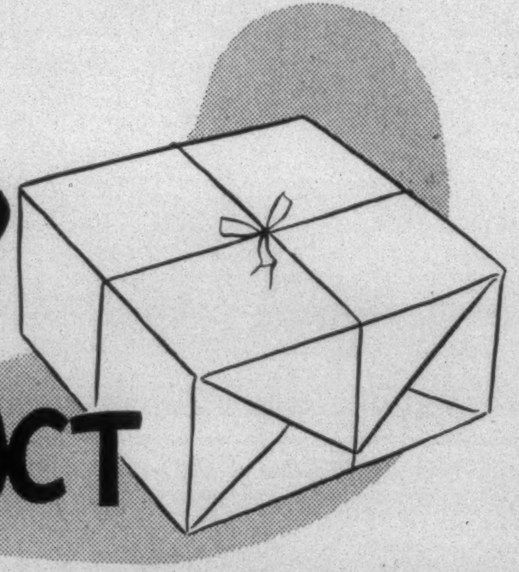


but...

Guess What?

IS NO GOOD FOR

YOUR PRODUCT



Customers see the package before they see the product. Why not tell them what's inside?

Let us develop a distinctive package wrap for you, incorporating trade mark and product identification in an attracttive design. And we can furnish auxiliary packaging material you might need to protect your product . . . tissue, twine, tape, boxes and all types of paper. Call the nearest Dillard house for quick service.

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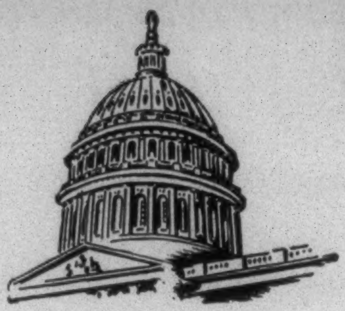


WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Truman expects to come down hard on price controls, priorities, restriction and inflation brakes after the election. Wage controls are not expected. Defense officials are loudly complaining of gentle pressure now. While the President takes it easy before the voting, he will put drastic brakes on credit, especially home mortgages, and ask for the highest taxes in the country's history.

Top defense officials say productive plant capacity cannot be expanded adequately for both military and civilian needs without drastic controls now on most essential materials. What is causing their fear is the wage spiral rapidly spreading to all basic materials. Unions show no disposition to reduce their wage demands.

Business men, mostly small, are adding to the pressure on Truman through complaints of uneven distribution of raw materials. As war production gets rolling, these complaints may force civilian priorities all along the line; they are ammunition for demands for hard and fast priorities and allocations, with plenty of backfire for little business men.

It is only one short jump from civilian priorities and allocation to all around rationing of civilian goods. Rearmament will cover a long period, even after the Korean trouble stops. The government is building for future safety; it probably means years of big taxes, shortages, priorities and inflation controls.

Peace in Korea does not mean a let-down in rearmament. Real peace is a long way off. Communism has a deep hold in Korea, and the Kremlin does not expect the U.N. coalition to hold together very long. Pentagon officials are convinced Russia is determined on war, and only bidding for a favorable time. Russian armies and armament exceed by two or three times anything needed for defense.

High domestic spending for five years is about to pay off in the highest personal income taxes the country has known. Truman will ask Congress for $35 to $40 billion in new arms spending. The American way of life is definitely facing change; the tax squeeze will be terrific, and only a start. Treasury Secretary Snyder says the "average taxpayer has no idea of the heavy burden he will shortly have to bear."

A possibility is an excess income tax, under which income would be averaged over several years, and all annual income over the average confiscated. It would be a capital levy, applicable to everybody. The proposal is under study by the Treasury, and may be asked by Truman from the next Congress.

G.O.P. leaders show a willingness to go along with Truman on demands for huge new war spending, in addition to $35 billion already provided. Some call it a good start on his dream of a trillion dollar economy, with $12,000 a year average family income, as outlined in his January message to Congress.

An excess profits tax will bring on the hardest battle in Congress. Criticism is it would curb expansion, give tight federal control over investment, but not bring in much federal revenue. Advertising and Christmas bonuses would soar skyward. Advocates are the big spenders from sparsely settled states, and union leaders who see lowered resistance to wage boosts.

The Treasury is worrying about future sales of war savings bonds. With growing inflation, dollars with which the bonds will be paid will be much cheaper than dollars with which bonds are bought.

British officials are losing hope that America will make a good cash contribution to help cushion their heavy three-year defense program. They say they must have substantial U. S. help to do the job. They also sought to induce this government to make up by cash any loss in their export revenues caused by defense spending.

"Softening" American currency on foreign exchanges, as reflected by F.R.B. indices, is drawing on the U. S. gold supply and pointing toward revaluation abroad. It's being pushed along by day to day inflation in prices and wages, and declining exports.

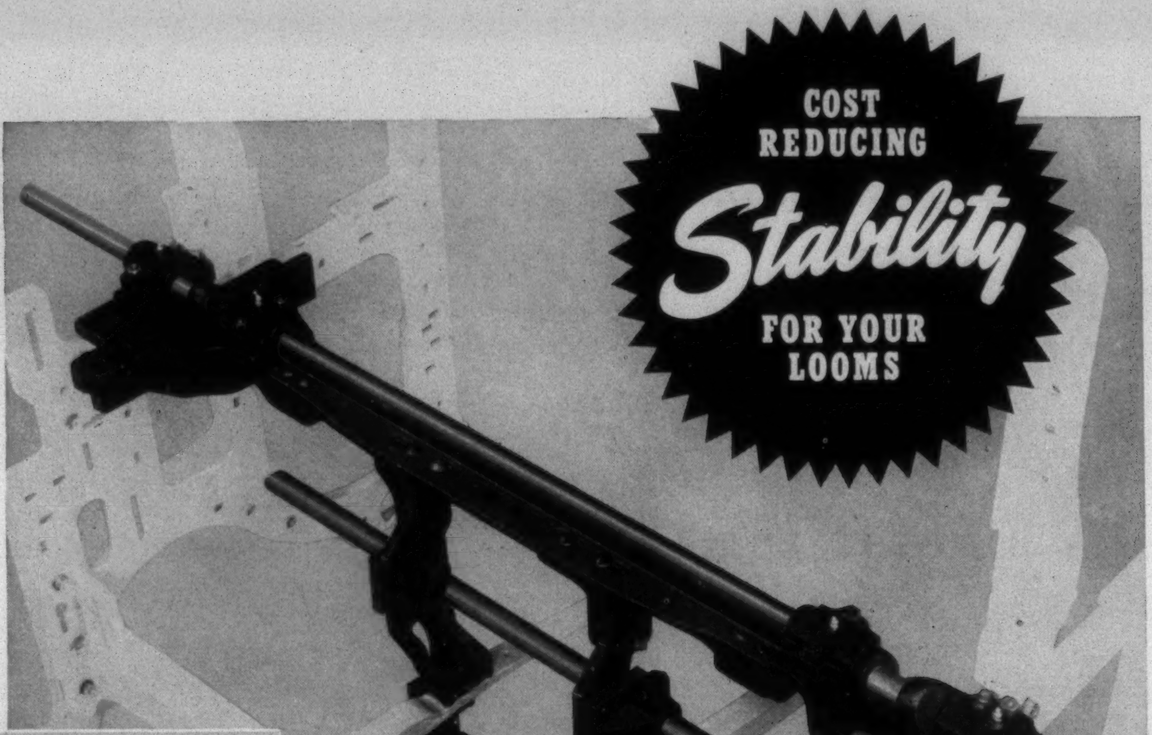
Labor Secretary Tobin assumes manpower control by setting up an Office of Defense Manpower. It will perform similar to McNutt's War Manpower Commission.

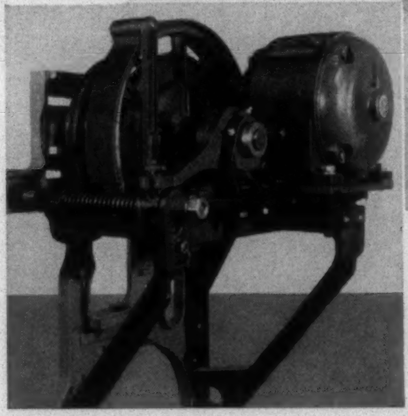
Plant managers are being asked by the Munitions Board to review World War II security measures and guard against organized sabotage. In the event of war the board expects intermittent dislocations by sabotage and incited labor troubles.

Union bosses are not satisfied with their scope of power in rearmament control agencies. They are complaining loudly to Truman, and pointing to their campaign service. They want not only a say in policy, but consultants in every defense agency and their own men in administrative jobs, telling industry what to do. Truman is expected to yield to them on every point.

Most that Truman can expect in this election is a bare majority in either branch. Fair Dealers will be in a heavy minority; Southerners who opposed Truman's proposals will be strengthened. A Republican and Southern coalition will run the next Congress.

Hoover Commission proposals for government reorganization are likely to be permanently shelved under the surge of rearmament. Truman has never been sympathetic to them, and hostile since Congress rejected his versions of them.





The Bahan Top Girt gives a new conception of what can be accomplished with "E" Model looms.

MODEL "C" MOTOR DRIVE

A new unit which greatly reduces friction losses, the Model "C" motor drive is designed for installation directly on the loom side. Using two ball thrust bearings, a tapered bushing for simpler installation, and grease-lubricated bearings, this unit gives you a rigid and efficient drive. Furnished complete with crank shaft gear and new hand wheel or brake wheel. Ideal for use with new NEMA frame motor. Each unit is assembled, tested, and shipped complete with all bolts, nuts, and washers.

Can be furnished with 10-Pitch or 8-Pitch gears.

Bahan Top Girts give Model "E" looms far greater rigidity and reduced vibration so necessary to today's requirements of higher loom speeds, better quality cloth production, and lower maintenance cost.

Bahan Top Girts consist of two END SECTIONS, each containing bronze, grease-lubricated bearings for inside and outside of crank throw. Rigid, one-piece CENTER SECTION features machined flat surface with rectangular key and keyway for correct alignment of all bearings; and UPRIGHT SUPPORTS from floor to center section. The two cam shaft bearings are grease lubricated. Each Bahan Top Girt is factory aligned with new crank shaft before shipment.

ADVANTAGES OF BAHAN TOP GIRTS

- Greater production from present looms
- Smooth, high-speed loom operation
- Constant, positive bearing alignment
- Simplicity of installation
- Non-interference with stop motions

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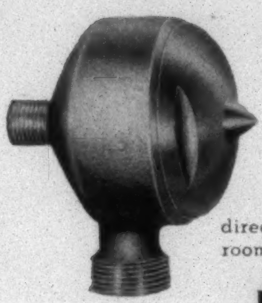

ESC ATOMIZER

The Bahnson ESC Atomizer provides humidification or supplementary evaporation with a modulating control to vary the evaporative capacity of the Atomizer in direct proportion to the room requirements.

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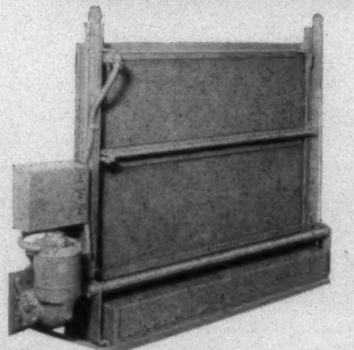
AUTOMATIC CLEANERS Type S-1

The Bahnson S-1 Cleaner to automatically remove lint from recirculated air screens of unit or central station air conditioning systems.



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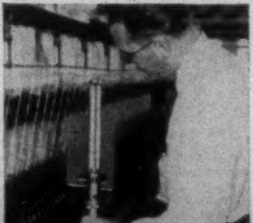
MOTORIZED PSYCHROMETER

Motorized Psychrometer for accurate and rapid wet and dry bulb temperature readings complete with humidity calculator and record pad holder.



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Here is the heart of progress and development of Bahnson Industrial Air Conditioning Equipment. Here is where facts are found and the final sales data prepared. Here is where the users of Bahnson Installations derive advantages of economy, flexibility and efficiency that are the underlying principles incorporated in all Bahnson Equipment.

Bahnson Company
AIR CONDITIONING HUMIDITY CONTROL
ENGINEERS AND MANUFACTURERS
WINSTON-SALEM, N. C.

textile bulletin

VOL. 76 *OCTOBER, 1950* *NO. 10*

GREENVILLE GLIMPSES—1950

WHEN one studies the names of mill men who attended the 16th Southern Textile Exhibition Oct. 2-7 at Greenville, S. C., there is almost automatic agreement that the show was a success. During the week the staff of TEXTILE BULLETIN distributed a total of 121 mimeographed bulletins listing the names, titles and firms of approximately eight thousand textile plant presidents, vice-presidents, secretaries, treasurers, managers, superintendents, purchasing agents, master mechanics, engineers, loom fixers, designers, overseers, foremen and second hands who walked through Textile Hall. The "press run" on each bulletin was 350, making a total of 42,350 sheets actually processed during the week. TEXTILE BULLETIN has rendered a similar service at all past Southern Textile Expositions, and inaugurated the service at the first American Textile Machinery Exhibition in Atlantic City this year. Exhibitors at Greenville can obtain missing copies of most of the show attendance bulletins upon request to our advertising department. The fact that these thousands of mill officials traveled to Greenville and exposed themselves to the numerous textile processing machines and supply items on exhibit there should be sufficient evidence of the show's worth. On this and following pages TEXTILE BULLETIN presents a representative pictorial review of the 16th Southern Textile Exhibition. (*Note:* The photographer was Junius M. Smith, vice-president and business manager of Clark Publishing Co.)

Here are the six young women who cut stencils, mimeographed and distributed the 121 attendance bulletins published by TEXTILE BULLETIN during show week. Information seeker *(left)* is unidentified.

Henry H. Hersey Co. of Greenville, in co-operation with manufacturers represented by the firm, were hosts to visiting mill men at buffet luncheons served each day of the show at the company's offices. Pictured in this group are *(left to right)*: R. M. McCrary of Carolinian Mills, Inc., High Shoals, N. C.; George M. Hambleton of New England Bobbin & Shuttle Co.; William C. Cannon of Cannon Mills Co., Kannapolis, N. C.; Hext M. Perry, purchasing agent for a number of mills; John M. Foard of Ragan Ring Co.; and Henry Hersey. Joint hosts with the Hersey firm were New England Bobbin & Shuttle Co., Ragan Ring Co., Eriez Mfg. Co., National Plastics Co. and A. C. Lawrence Leather Co.

Scenes at the barbecue given by Seydel-Woolley Co. Wednesday evening of exposition week, attended by over 300 mill men and other invited guests. In *center* Clayton, Vassar Woolley's good Man Friday and chef par excellence, entertains the crowd with some spirituals to orchestral accompaniment.

Acme Steel Co. **Allen Beam Co.**

Armstrong Cork Co. **Atkinson, Haserick & Co.**

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ACME STEEL CO
ACME FRICTION SEAL METHOD OF BALING

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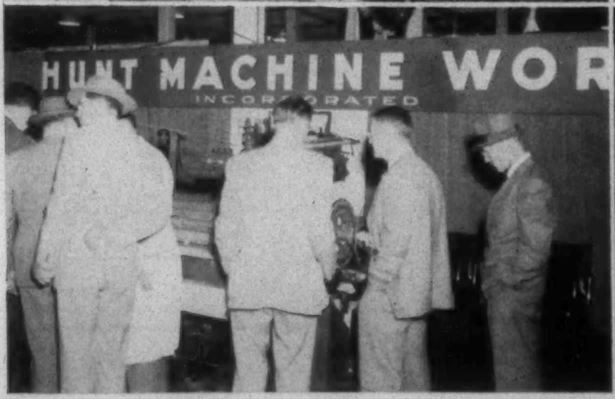


The Dayton Rubber Co. **Dixon Saddle Co.**

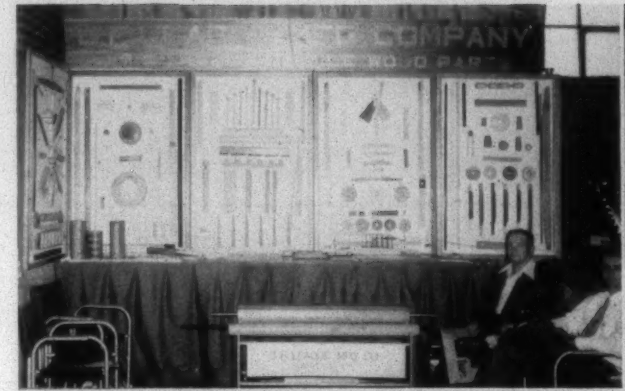
Hunt Machine Works, Inc. **Kirkman & Dixon**

G. F. League Mfg. Co.

The Marquette Metal Products Co.

Marshall and Williams Corp.

Mount Hope Machinery Co.



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Ragan Ring Co.

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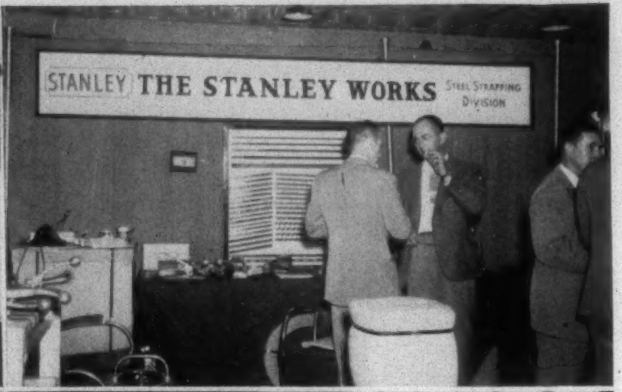


The Stanley Works

TEXTILE BULLETIN

U. S. Gutta Percha Paint Co.

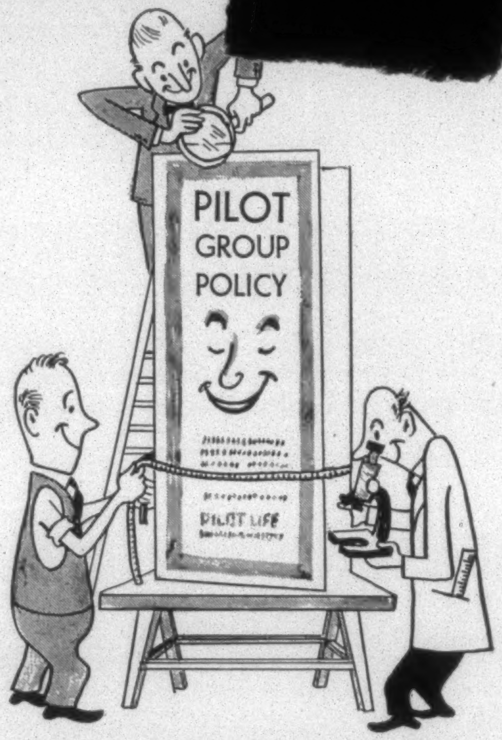
Veeder-Root, Inc.

Venango Engineering Co., Inc.

Waukesha Foundry Co.

Whitinsville Spinning Ring Co.

PILOT' [illegible]
GROUP P [illegible]
ALL *YOU* [illegible]
REQUIRE [illegible]



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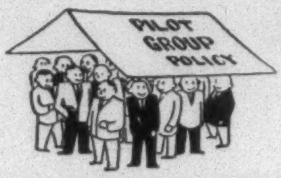
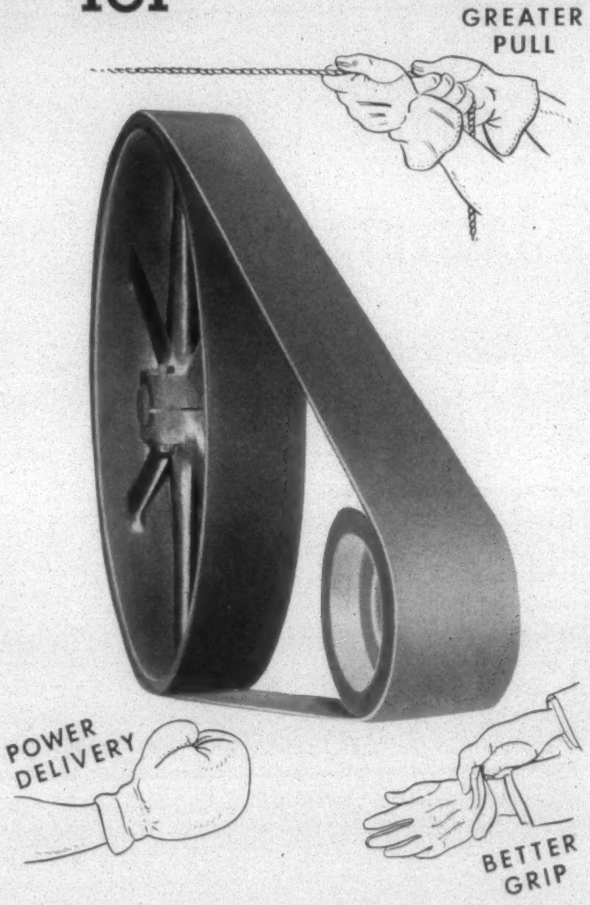


Joe McLean
Ed Maxwell
Glenn Lambert

PILOT LIFE
INSURANCE COMPANY

O. F. Stafford, President
GREENSBORO, NORTH CAROLINA

Feel the Glove-like Surface for



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DAMAGED PAGE(S)

Boys

Hazelwood

Rietz

Combed Yarn Association Celebrates 25th Anniversary At Spinner-Breeder Conference

GEORGE W. BOYS, president and treasurer of Green River Mills, Inc., Tuxedo, N. C., was elected president of the Southern Combed Yarn Spinners Association at the group's silver anniversary meeting Sept. 13 in El Paso, Tex. Mr. Boys succeeds Coit M. Robinson, president and treasurer of United Spinners Corp., Lowell, N. C. Ben R. Rudisill, president of Carlton Yarn Mills at Cherryville, N. C., and also of the Cartex Division at Salisbury, N. C., was elected first vice-president of the association and W. P. Hazlewood, president and treasurer of Pickett Cotton Mills, High Point, N. C., was elected second vice-president.

Many members of the spinners' association also attended the seventh annual Spinner-Breeder Conference which opened in El Paso Sept. 11 and was concluded at noon, Sept. 13.

In offering his report as retiring president of the S.C.Y.S.A., Mr. Robinson declared that the combed yarn segment of the cotton industry is well prepared to cope with whatever emergencies may arise, adding "Our experiences and the reputation we gained during World War II qualifies that statement." Mr. Robinson reviewed the association's activities during the past year, and bringing his remarks up-to-date, stated: "At present we are busy on matters pertaining to protective clauses on contracts and the question of supplemental quotas of Egyptian cotton."

Three delegates to the El Paso functions listen to Mayor Duke at a luncheon for delegates. *Left to right* are: Ord Gary, El Pasoan in charge of convention arrangements; A. C. Lineberger, Jr., Belmont, N. C.; Mayor Duke; and H. B. Crosby, vice-president of the Mississippi Seed Improvement Association.

Dr. Claudius T. Murchison of the American Cotton Manufacturers Institute staff told the spinners that a well-ordered program of cotton control is desirable, pointing out that the methods so far used had not satisfactorily met the test of experience. He stated the job couldn't be done by incidental conferences but would require the best thoughts of experts representing growers, distributors, manufacturers and those best informed in the fields of consumption and international markets.

"I believe thoroughly in the principle of cotton agriculture controls," Dr. Murchison declared, "and I believe that no one who fully understands cotton can have an opposing view. Profitable discussion and profitable action in the future, therefore, should properly concern themselves with improved methods and procedures rather than the basic principles involved." Dr. Murchison then outlined the possibilities of administrative improvement in the national cotton control policy.

A Spinner-Breeder Conference panel discussion on cotton breeding to improve spinning quality was presided over by Mr. Boys, new president of the S.C.Y.S.A. Opening the discussion, Mr. Boys declared that he, as a spinner, would like to see cotton as free from nep as possible, and that he hoped the day would come when those buying cotton could have it classed for nep content as well as other characteristics. Other panel participants dealt generally with research aimed at bringing about the most satisfactory cotton crops in each of the growing regions.

A number of mill executives took part in Spinner-Breeder Conference discussions on the character of ginning of cotton. Most of them insisted that something must be done about this as there were instances where poorly-ginned cotton was not spinnable or produced substandard yarn.

R. Barton Hayes, president and treasurer of Hudson (N. C.) Cotton Mfg. Co., stressed the importance of certification of cotton—so that the mill man knows what seed was used, where the cotton originated, etc., adding that such

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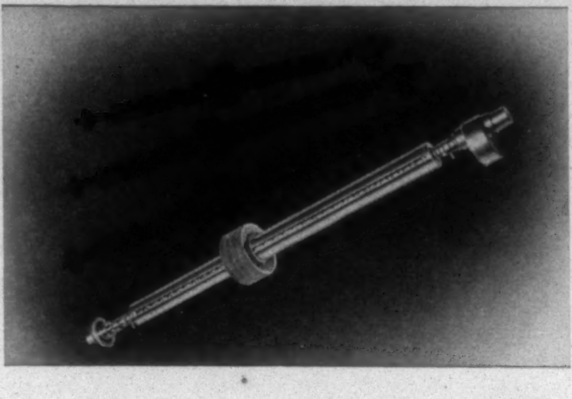
HUGH WILLIAMS & CO., 47 COLBORNE ST., TORONTO 1, CANADA



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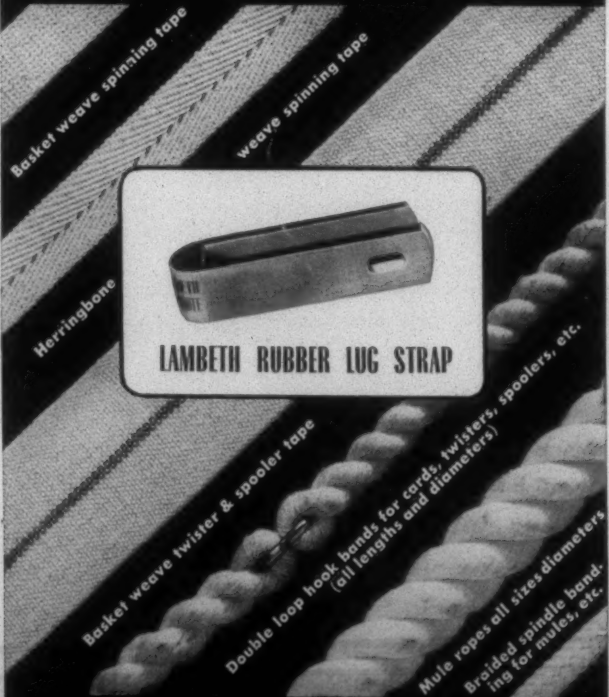
Basket weave spinning tape
weave spinning tape
Herringbone
LAMBETH RUBBER LUG STRAP
Basket weave twister & spooler tape
Double loop hook bands for cards, twisters, spoolers, etc. (all lengths and diameters)
Mule ropes all sizes diameters
Braided spindle banding for mules, etc.

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data had been tremendously helpful at his mill. Cotton that will give uniformity is what is needed, he declared.

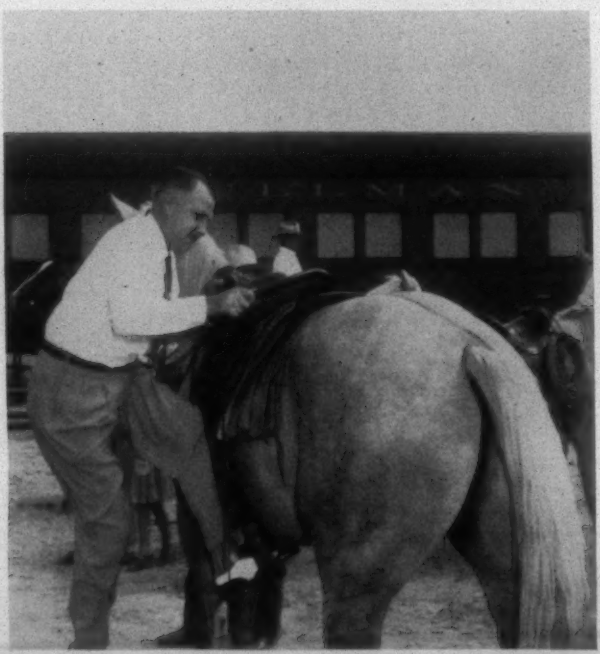
The proposal that seed breeders should adopt one variety for their particular community so that gins would not process cotton grown from more than one variety of seed was offered by Charles S. Clegg, president of Globe Mills Co., Mount Holly, N. C. Mr. Clegg said that if cotton were positively identified as to locality of growth and variety of seed, mills would be willing to pay a higher price for such a uniform cotton.

R. Dave Hall, secretary and assistant treasurer of Stowe Thread Co., Belmont, N. C., called for co-ordination of effort in solving cotton's problems and declared that such co-ordination can best be achieved when every segment of the industry realizes that to merit its share of profit it must give consideration to cotton's problem as a whole. Pointing to the profit motive as the factor that would of necessity delay the day of perfect co-ordination, Mr. Hall stated: "The cotton industry must have a profit, but since this far-flung industry does not lend itself to integration (such as the synthetic fabrics industry) that profit must be split into a number of small pieces—a part for the breeder, a part for the grower, a part for the ginner, a part for the shipper and warehouseman, and finally, a part for the spinner. Since we cannot have integration, we must substitute co-ordination." A proper balance of this profit between the various segments of the industry would hasten co-ordination, he said.

Dean Malcolm E. Campbell of the School of Textiles at North Carolina State College, Raleigh, and F. Leo Gerdes of the Stoneville, Miss., laboratory were presented certificates of merit at the closing session of the Spinner-Breeder Conference "For service rendered to the cotton industry through spinner-breeder conferences, in promoting the recognition and understanding of mutual problems as related to cotton spinners, and in promoting practical uses of fiber technology and in cotton merchandising."

Mayor Dan Duke *(left)* intercedes for spinners arrested by El Paso Deputy Bob Bailey and Police Chief W. C. Woolverton. His honor gave the delegates, who were charged with not being "dressed Western," brand new ten-gallon hats. Looking on are two of the "culprits," A. G. Myers, Jr., and Gene Rietz.

Those in attendance at both the Spinner-Breeder Conference and the convention of the Southern Combed Yarn Spinners Association were unanimous in their appreciation of the hospitality shown the visitors to the Texas city.



Gene Rietz, executive secretary of the Southern Combed Yarn Spinners Association, attempts to mount the horse of an El Paso sheriff's posse member after a mock holdup of the cotton delegates' train enroute to their annual convention. The secretary should stick to secretarying, since he was successful only after three tries.

The S.C.Y.S.A. elected four directors for three-year terms. They are Ernest Boger, manager and vice-president of Boger & Crawford Spinning Mill at Lincolnton, N. C.; Frank Lyman of Fitchburg (Mass.) Yarn Co.; Mr. Hayes and Mr. Hall.

N.E.T.F. To Offer 20 Scholarships In '51

New England Textile Foundation, 68 South Main Street, Providence, R. I., announces that it will award up to 20 $2,000 textile college scholarships in 1951 in the textile colleges of New England: Bradford Durfee Technical Institute, Fall River, Mass., Lowell (Mass.) Textile Institute, New Bedford (Mass.) Textile Institute, and Textile School of Rhode Island School of Design, Providence, R. I. Scholarships will be payable at the rate of $250 per semester, or $500 per year for four years, provided the student maintains satisfactory marks.

Scholarships will be awarded on the basis of the student's high school record, as reported by the principal, and marks obtained in an examination given by College Entrance Examination Board on Saturday, March 10, 1951, in various parts of the country. Students may select any one of the four colleges named above. Seniors in high school or graduates of high school not over 25 years of age who wish to compete should write direct to the foundation for application blanks and scholarship booklet. All applications and principals' reports must be in the hands of the Foundation by Dec. 11, 1950.

The Association of Cotton Textile Merchants of New York has been officially designated as a procurement co-operating agency by the United States Department of Commerce. The designation is under a department program utilizing the facilities of trade associations and like groups to receive and make available to the business public a periodical list of Department of Defense and General Services Administration procurements. Appropriate files of these listings are being maintained and may be consulted by persons interested, supplementing the government bid services which the association has for many years conducted.

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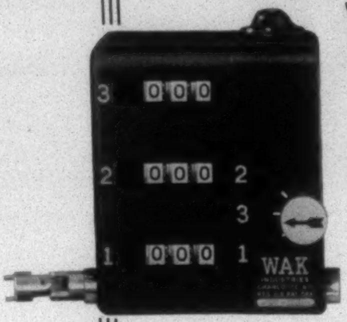

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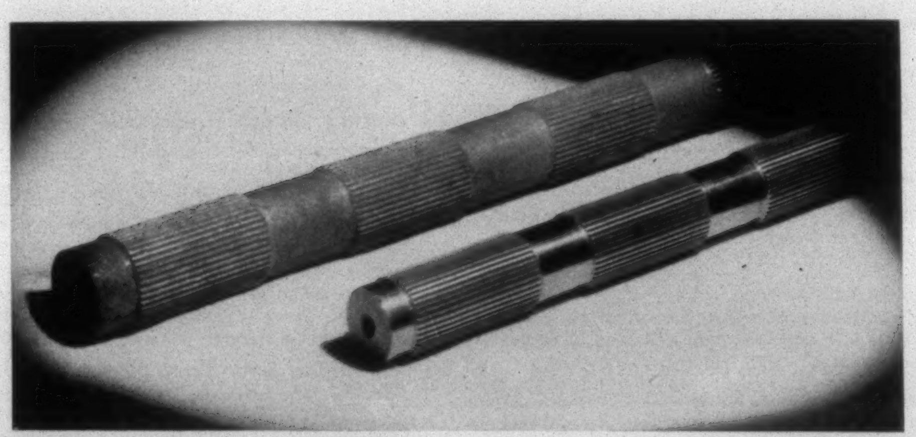

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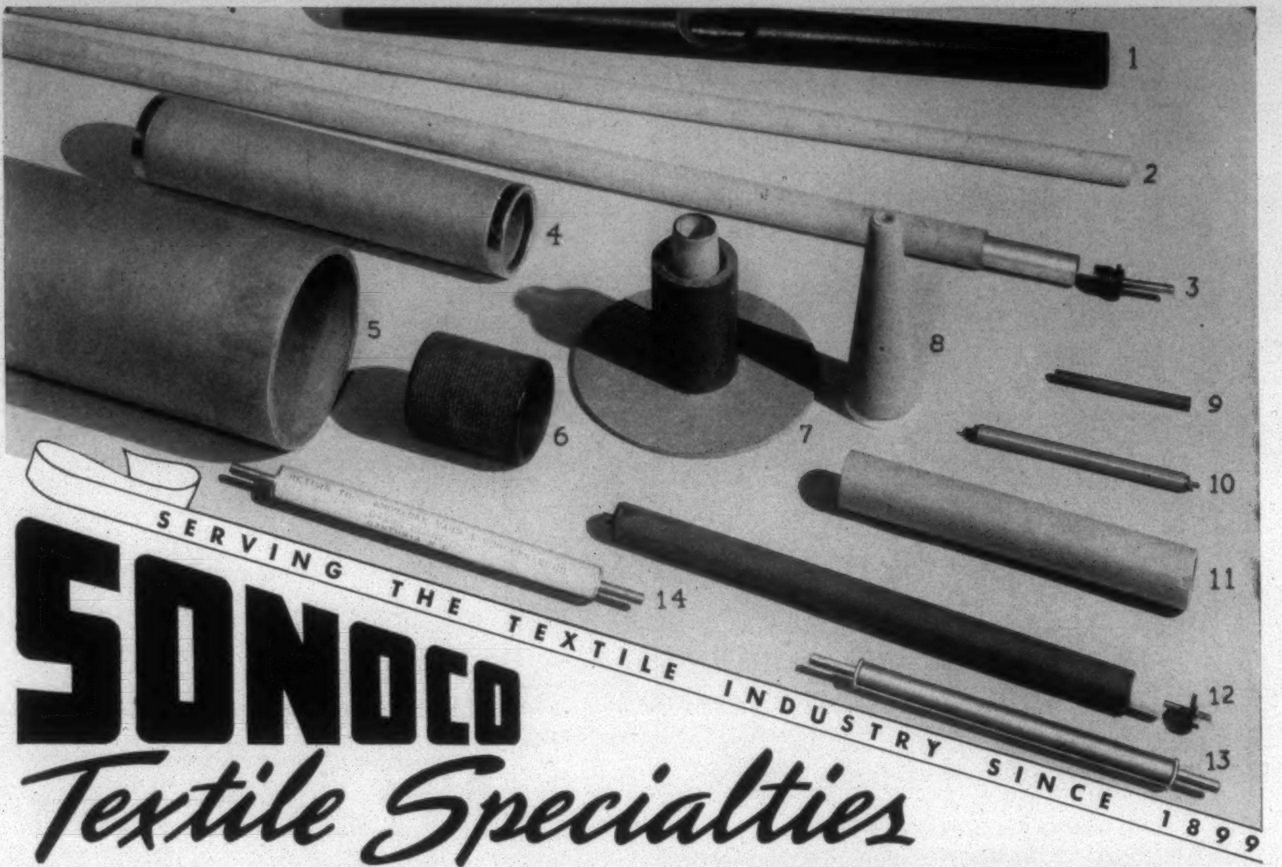

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Textile Specialties

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2 Card Clearer Roll Covers: A velvet surface paper tube that fits over the card clearer roll, commonly known as the dust roll. Easily replaceable when worn out.

3 Topping (Thompson) Rolls and Covers: A replaceable velvet surface paper tube on a permanent core, secured with removable ends—for picking up fly waste on front of cotton card.

4 Pin Drafter Core: A reusable core for worsted ball sliver. Fits accurately over the arbor shell for easy placement and removal.

5 Loom Beam Repair Tubes: A heavy duty tube which fits over the wooden barrel of the beam or that can be used as the barrel with special plugs and pins. A definite saving in loom beam repair.

6 Spooler Cheese Cores: Adaptable to Barber Coleman Spoolers and other similar operations. Available for one-time use or impregnated and specially treated for repeat use.

7 Rayon Cake Forms: Designed as a cake holder for use on machines using rayon wound in cake form. Prevents cake from collapsing as yarn delivers to machine.

8 Cork Covered Cones: A permanent wooden cone covered with layer of cork—widely used for magazine creeling by plants spinning their own warp yarn.

9 Temple Roll Cores: A treated paper tube used as a core for temple rolls. SONOCO'S impregnation process makes the cores resistant to moisture and high humidity, thereby assuring excellent performance.

10 Self-Weighted or Floating Roll Covers: Made of highest quality synthetic materials. Except in cases of an accident or unusual damage replacement is rare.

11 Roving Tubes: A paper tube used for shipping roving or to put yarn in stock. Saves tying up wooden bobbins. Roving tube slips over wooden bobbin for winding.

12 Underclearer Rolls: SONOCO underclearer or scavenger rolls are widely used for their economy and efficiency. A velvet surface paper tube is fitted over a wooden core secured at the ends by hard fibre washers held in place by removable pins. When cover wears out (20,000 hours or more), it is slipped off the core and replaced at a fraction the cost of a new roll.

13 Aluminum Ball Warp Mandrels: A new SONOCO development is aluminum ball warp mandrel adaptable for either Cocker No. 500 High Speed Warper, No. 130 Entwistle or the Twin Traverse. These mandrels, which weigh only 12½ pounds, are all designed to take a standard SONOCO ball warp tube.

14 Ball Warp Tubes: Our standard ball warp tube is 35¾" x 3" x 3½" to fit the SONOCO aluminum mandrel. Results indicate more uniform, smoother running than with wooden rolls and with less vibration and fewer ends down. Tare is uniform for each roll at 3 lbs. Rolls can be stenciled with owner's name and returned for re-use.

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THE PACIFIC CONVERTER

By ROBERT C. WILKIE, Director of Engineering Research
Pacific Mills Worsted Division

FOR the benefit of those present who might not have any knowledge of the Pacific converter, I would like to briefly state that the converter is a machine, so named, due to the fact that it converts in a single operation any continuous textile filament into a sliver of predetermined fiber length suitable for subsequent processing into spun yarn. First, I would like to present the following historical brief of the Pacific converter development which I trust will prove to be of some interest to you.

In the relatively early period of acetate and viscose spun rayons, the Pacific Mills worsted division became interested in the feasibility of devising some means of processing continuous filament without necessitating cutting, baling, picking, carding, gilling, and combing as separate operations in the manufacture of worsted type yarn. The basis of the idea was founded on the fact that the original bundle of continuous filament, commonly called tow, carried superior characteristics which could never be duplicated by the conventional system of processing. The filaments of the tow were exceptionally parallel and the uniformity per unit length of the strand itself was far superior to anything previously known in the textile industry. Those who came in contact with or had knowledge of these continuous filament tows could not help but sense the unsound reasoning of cutting such an ideal strand into bulk fiber and then promptly and laboriously proceed to straighten each and every fiber out again, in an attempt to form a sliver that would simulate the original.

The basic idea was so apparent that several of the personnel within Pacific Mills were free-lancing with the idea and unwittingly duplicating trials. With respect to this, I am certain that the first attempt by the majority of people throughout the world was to break or brutally tear the tow apart, such as in a gill box without fallers.

The management of Pacific Mills became so confident in the feasibility of the idea that on Sept. 8, 1937, I was assigned full-time to the investigation and possible development of a method. As it so happens with most assignments of this nature, I was required to take at least two to three weeks after the 8th to terminate prior work, and in the interim acquired several additional assignments.

However, in December of 1939, we had the first Pacific converter in production under lock and key. We converted acetate tow into worsted type top for our own use and for sale on the top market. The theory being that the merit of a given process would be best established if the product were made available to the open top market and at a competitive price. On this basis, we could evaluate the system more expeditiously and obtain an unbiased evaluation on a greater volume than we were then in a position to process into cloth in our own mill.

In 1941 and 1942, further advancements were made, resulting in four machines in production on acetate. The unit was then set up as a department of the Pacific Mills and called the rayon top department. By the end of 1942, we had converted considerably over one million pounds of acetate filament into top. Also, at the end of 1942, the bottom dropped out of the spun acetate market. Our attention was then diverted to the processing of viscose tow which up to that period was not suitable in quality nor available in sufficient quantity. In 1934, we learned that there were numerous people involved in the same development and that there were at that time 42 patents issued in the United States alone on different methods of conversion.

Along with improvements in quality of viscose tow and our own process, we were able, at this time, to pay five cents a pound premium for viscose tow over staple, convert it into top and compete with conventional commission combers who charged between eight and nine cents a pound conversion charge for staple-to-top processing. The rayon top department was operating at this time on a two and three-shift basis.

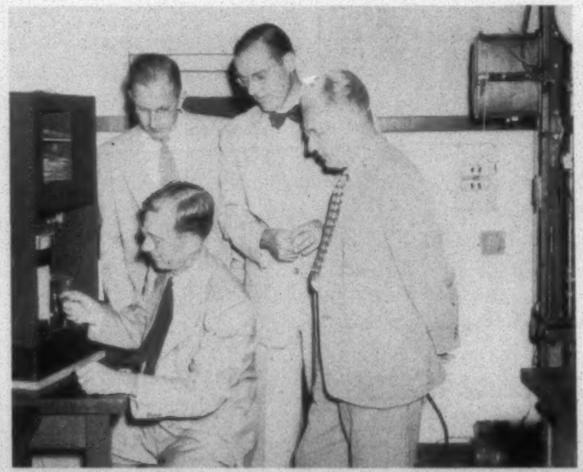
In 1944, we had well-established ourselves in the worsted industry as to the economic soundness of the process. In other words, we had accomplished to a satisfactory degree our original objective. However, in all forms of development, the true objective sometimes becomes quite elusive. At this time, two major factors became apparent which would control the outcome of the future of such a process. One factor was that the worsted industry was far in the minority in processing rayons. The ratio was something on the order of 15 million pounds in the worsted to 120 million pounds in the cotton industry. The advantage of conventional processing of rayons was in the hands of the cotton system. This meant that the converter system was not in competition within the worsted industry, but if the worsted industry intended to be in the synthetic field at all, it would most certainly be required to use some form of direct conversion. The second factor was that the Pacific Mills required more tow and better quality tow for its converter operation because its system could compete. Here, the problem was that the volume of synthetics which could be consumed by the Pacific Mills was so small in proportion to the whole that the tow manufacturers could not be induced to co-operate with the program.

Consequently, in order to acquire the volume and quality of tow desired for our own consumption, we were forced to develop a tow demand sufficient to interest the tow manufacturers. The only way this could be accomplished would be to develop a converter suitable for use in the long staple cotton industry. The outcome of this policy is what we call the Universal Converter, which will convert 2½ through to seven-inch staple, either in a straight cut or variable cut staple. A sufficient number of these machines would then be made available to the textile industry in order to build up that tow demand.

Under the present economics of this country, if these machines were sold outright, the Pacific Mills would put itself on an equal footing with all competitors within a very few years—maybe one or two. Pacific Mills felt it was justified due to its initiative and expense of the development to maintain a slight advantage in processing; namely, one-half cent per pound. The actual cost of this development was considerable in proportion to the scope of development work as generally practiced in the industry. Pacific has no intention of acquiring great wealth from this form of revenue but it seems logical under these circumstances that it should have a legitimate edge on the use of the system which it devised.

In recent years, the converter system has received helpful advances by the introduction of spun nylon, Fiber V, Vicara, etc. The importance of the system has also become greater due to the ever-increasing interest and use of blended fibers. The future looks very promising with Orlon, dynel and the numerous new filaments that are on the verge of introduction, as well as those to come.

Another helpful trend is the use of longer fiber lengths. Looking back it is quite amusing to recall the positive assumption that two inches or thereabouts was the maximum ideal fiber length; that no intrinsic value in yarn could be obtained from any longer length. Today, in many instances, the cotton system in its trend toward longer length and the worsted system in its trend toward shorter length have actually passed each other. What is the ideal staple length which will enable any mill, cotton system or worsted, to find the most security by flexibility? The flexibility of yarn counts, hand of cloth, spinning efficiency, seasonal design effects, appearance, etc. A 3½-inch straight or variable cut appears to fill the bill for the great majority.



OFFICIAL VISIT—James N. Grant *(seated)* and Dr. Kyle Ward, Jr. *(right)* of the Southern Regional Research Laboratory at New Orleans, La., discuss fiber testing with representatives of the National Cotton Council, Dr. Leonard Smith and George Buck, who began an appraisal of the work of the U.S.D.A. facility last month. Dr. Smith and Mr. Buck recently were appointed to assist in planning a more effective research program on the utilization of cotton.

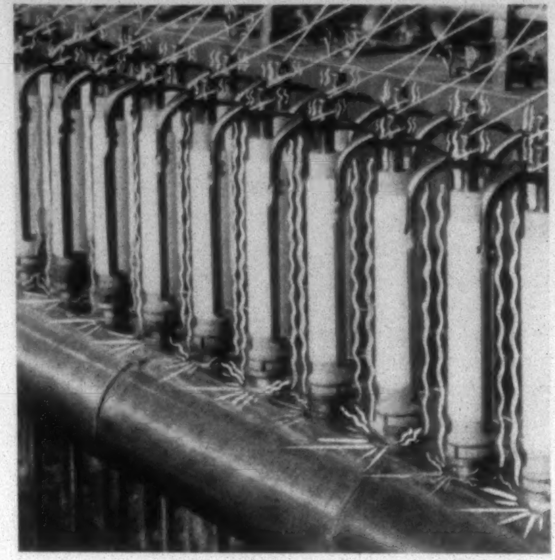
To date, Pacific Mills has built 30 converters of its own design. These machines are in use in three of its plants, converting all types of the present available tows for its own use and on commission. The total poundage processed, represents considerably more than the previous yearly worsted consumption. It is only rarely that a United States patent is granted on a complete textile machine or process. The Pacific Mills has patents or patents pending in 20 countries, exclusive of the United States.

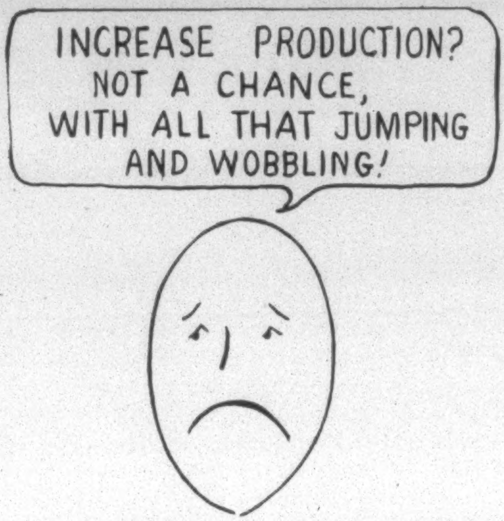
With respect to the introduction of the Pacific converter to the industry, it became logical for a direct relationship with Warner and Swasey Co. of Cleveland, Ohio. This was brought about due to several reasons. Their reputation as a machine builder was exceptional. Their interest in new devices for the textile industry directed their interest towards the converter. Probably the reason which bound the two together most securely was the fact that the Pacific converter and Warner and Swasey pin drafter systems were most complementary to each other than any other combined set of processing equipment in the industry. In addition to the Pacific Mills' converters, Warner and Swasey now has more than 20 machines of their own design in use in the industry. By the first of next year, 1951, there will be more than 50 Warner and Swasey Pacific converters in operation.

The requirements and sequence of conversion stages starting with 100 per cent tow through to the delivered sliver are as follows: (1) The formation of a uniformly thick sheet 12 inches wide, made up by multiple parallel filament tows totalling approximately two million denier. (2) The cutting action. (3) Debonding. (4) Drafting. (5) Shuffling. (6) Second drafting. (7) Second shuffling. (8) Third and final drafting. (9) Collection into a sliver. (10) Crimping.

The blending feature is probably one of the most important phases of the system. Its significance is emphasized by the fact that the shorter a short cut system is made, the more critical the blending becomes. The two principal conventional blending techniques used are represented by the picker and sliver methods. The picker blend produces the all-round best fiber-to-fiber mixing but falls down on control of per cent blend. It is inclined to be pretty spotty due to variation in concentration of the respective fibers. The sliver blending results in better control of per cent blend but lacks interfiber mixing. We have in some respects combined the best features of the two conventional systems.

With regard to synthetic fiber blending, we form separate sheets of each material and laminate them as they are fed to the cutter. In so doing, we have accomplished two important conditions. First, we acquire excellent control of the per cent blend due to the exceptional uniformity of the tow which is superior in this respect to sliver blending. Second, by laminating the sheets, we instigate the sandwich phase of the start of the picker method. The sheet delivered by the converter, after being extended and thinned down to five per cent its original thickness, is still in a laminated condition. We then diagonally roll this sheet into a sliver. The resulting sliver can possibly be best described as having a cross section similar to a jelly roll. We can readily demonstrate this feature by using black filament on the bottom sheet and white on the top. Another means of demonstrating this is to charge the machine with all-black on the left side and all-white on the right side. The resulting sliver

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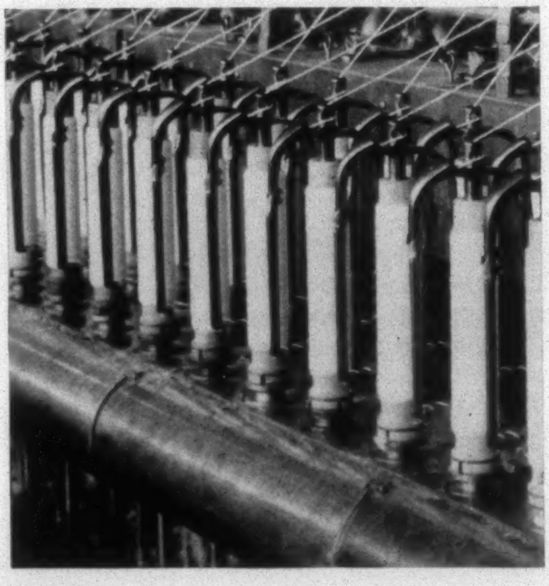

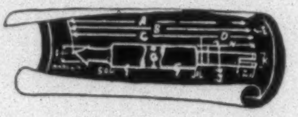

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will have a pure white core incased in a uniform black ring.

Consideration must be given the fact that these results are not blending in the true sense. The accomplishment is simply a method of putting the component parts together so that the subsequent three pin drafting operations readily bring about the complete blend.

Blending Attachment

The blending of natural fiber, such as wool, with one or more synthetics is accomplished in a similar manner. In this case, a blending attachment is required which consists of two sets of rolls mounted directly over the cutter phase. There is a controlled draft range of three to six between these two sets of rolls. The blending attachment enables the natural fibers to by-pass the cutting phase and to be introduced at a central point into the converter in the form of a sheet to be laminated with the sheet of the synthetic fiber. The cutter rolls are fed the capacity of two million denier. A sufficient number of natural fiber slivers are fed to the attachment to form a sheet of the proper width. The per cent blend is accurately controlled by the proper doubling of the slivers and the selected draft of the attachment. Up to ten tops (three ounces per five yards) may be fed to the unit. The two or more sheets are brought together at the nip of the second drafting phase. The resulting sliver delivered by the converter has the same jelly roll effect as mentioned previously for the 100 per cent material.

The net production of the cutting capacity of two million denier is 120 pounds per hour. With the use of the blending attachment, the production is increased in direct proportion to the amount passed by the blending attachment. We have converted on this basis at the rate of 340 pounds per hour. The limiting factor is purely the maximum weight per yard of sliver wanted for subsequent operations.

Another feature of the blending attachment is its ability to break wool. Common worsted type wools which represent the main volume of wool in this country are readily brought down to size for long staple cotton processing. The maximum staple length is controlled by the ratch setting of the two sets of rolls making up the blending attachment. The break is made simultaneously with the blend control draft. The resulting staple diagram is a decided improvement over cut wool sliver or short staple premium wool. The shortest maximum length resulting from this method is quite similar to a good two-inch carded rayon staple diagram. The yarn results obtained by this method are superior to the conventional cut wool or selective short wools to an extent that the converter is being used for processing 100 per cent wool. On this basis, we can feed twelve ends of top (three ounces per five yards) at 27 per cent average unevenness per second, effect 25 of a draft (product of blending attachment draft and final converter draft), and deliver a 130-grains-per-yard sliver at 14 per cent unevenness.

With regard to the economics of the Pacific converter, I am certain that each and every mill organization has its own specific problem of evaluation. For those planning new mills or additions, the answer is obvious. The best I can do is to list the major features which have a bearing.

(1) The Pacific converter costs but a fraction of the machines it replaces.

(2) Two to four converters to one operator.

(3) At 100 per cent efficiency, the converter produces 140 pounds per hour on nylon or Fiber V; 160 pounds per hour on viscose or acetate; and 180 pounds per hour on Vicara.

(4) The total conversion cost per pound is less than three cents, including the one-half cent royalty, direct and indirect labor, burden, etc.

(5) A minimum of waste; year round waste on 100 per cent nylon, including converter and two gillings into top, 0.2 of one per cent. Will improve as tow improves.

(6) Low maintenance due to all rotating parts; one exception being the variable cut device.

(7) Better staple diagram.

(8) Characteristics of base material absolutely retained.

(9) Blending control.

(10) Wool breaking.

(11) Intangible feature of flexibility.

Direct conversion of filament tow-to-sliver is here and here to stay. As time goes on, undoubtedly, there will be other approaches and also improvements made on the Pacific converter. The tow manufacturers are rapidly improving the quality and desired characteristics of the tow.

Paper presented before the Sept. 6, 1950, meeting of the American Association of Textile Technologists at the Builders Club, New York City.

THE MILL OF TODAY

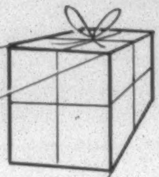
By ROBERT Z. WALKER

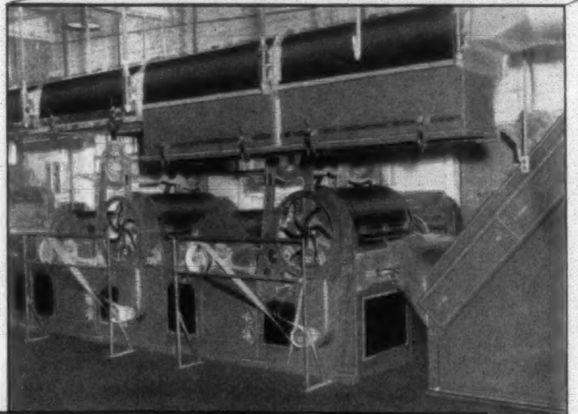
Part 22 – The Drawing Frame, Drafting Rolls

THE conventional drawing frame is essentially nothing but a drafting system mounted on a suitable chassis, inasmuch as the only purpose of the drawing process is to draft a number of slivers down to a size suitable for handling at the next stage of manufacturing. This next stage may be another process of drawing, a lap winder for combing, or it may be further drafting on a roving frame; but in every case it is necessary to double a number of slivers and then reduce them to a single sliver weighing from 40 to 60 grains. Therefore, the important details of the drawing frame are centered around the drafting assemblies.

The doubling and drafting action of the drawing frame performs several beneficial functions in adequately preparing fiber into a form suitable for the spinning of high-quality yarn. First, there is a doubling of either six ends of card sliver at the four roll can back drawing frame, or eight ends for comber preparation, or 16 ends of sliver for the lap back five roll type of drawing. The greatest change which

The Good Things IN A SMALL PACKAGE...





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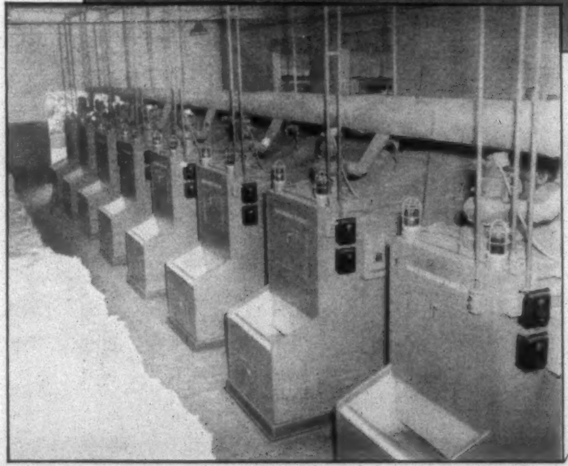

#2.

Modern Opening Room Installation at Plymouth Mfg. Co., Inc., McColl, S. C., showing (#1) H & B 30" Tandem Opening and Cleaning Unit, Superior Cleaner and Rake Conveyer. (#2) H & B Blending Feeders.

H&B

OPENING ROOM EQUIPMENT AT PLYMOUTH MFG. CO.

Laid out in a small area — operating with the maximum in cleaning and opening efficiency.

H & B's compact installation at Plymouth Mfg. Co., Inc., McColl, S. C. is working proof that modern opening room machinery can combine economical space-saving with profitable efficiency.

The "good" things that come in this "small" package are: eight Blending Feeders and one Independent Waste Feeder, an H & B Tandem Opening and Cleaning Unit, a 45° elevator type Superior Cleaner, English Cleaning Trunking and Rake Conveyor.

The Blending Feeders, 35½" wide between the frame sides, contain a spiked elevating apron and a plain slat feed apron. All eight of these and the Waste Feeder have individual motor drive and feed onto a 53' extended feed apron of the Hopper Bale Opener. The Blenders are all-metal and feature sprinkler attachments, tell-tale off-and-on lights and sheet metal closing doors on the hopper.

The H & B 30" Tandem Opening and Cleaning Unit contains 2 Buckley Beaters mounted on anti-friction ball bearings. These smooth running beaters thoroughly open and clean the cotton. The covers are equipped with a beater-locking device for protection of the operator.

After passing over the delivery apron of the Tandem Unit, the cotton feeds directly into a 45° elevator type Superior Cleaner with jumbo magnet, thence through piping and English Trunking back to a condenser and rake conveyer for delivery to 4 H & B One-Process Pickers.

The entire system is automatic. The cotton is not touched from the time it enters the blender until it comes off the picker as a finished lap. At all times the correct flow of opened and cleaned cotton is maintained by modern feed controls actuated by a mercury switch on the pickers.

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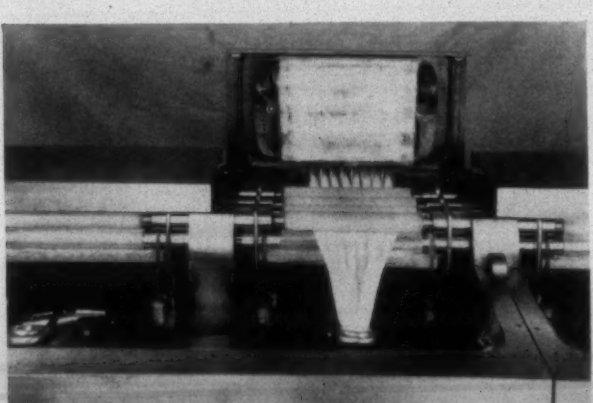
has been brought about, and which differentiates modern processing methods from those which are obsolete, has been the tremendous reduction in the number of doublings of the stock as it passes forward through the card room to the spinning room. Today, because of the general mechanical improvement of textile machinery, and in particular because of the superior fiber control during drafting, a large number of doublings are not required. While this is true, it is vital to have a certain amount of doublings if the yarn is to be satisfactory. Yarn appearance, to a certain extent yarn strength, and certainly machine efficiency, depend upon even sliver, and even sliver can be produced only by doubling card sliver. Doubling, which is the combining of a group of slivers into one large mass and then drafting the mass down to a practical size, tends to reduce the variations in thickness and weight which are present in the individual slivers. If it were not for this doubling and averaging out of the sliver evenness, the drafting at the roving frame and spinning frame would intensify the unevenness. When the thin and thick places were twisted on the spinning frame the twist would run to the thin spots and the result would be thin places with excess twist and thick places with practically no twist. As strength is dependent upon twist, and as either too much or too little twist causes weakness the finished yarn would be weak and have a poor appearance. The weak spots would break down at the warper, slasher, and in the weave room, and would drastically reduce the efficiency of these machines.

Another effect on the sliver during drafting at the drawing frame is the rearrangement of the fibers with the strand of sliver. Card sliver is composed of fiber removed from the doffer of the card by the comb and are grouped together with fibers doubled back upon themselves, and laying across each other in all directions. When the sliver is drafted between rolls the fibers are pulled forward against the restraint of other fibers and in so moving they are placed parallel to each other and in a straight line. When the drawing is correctly operated the final result is to produce sliver with all of the ends very closely parallel, although never as perfect as sliver which has been combed, and therefore in such a position which will allow obtaining the maximum benefit of the drafting abilities of the roving and spinning frames. Long draft at the roving frame and spinning frame is dependent upon the ability of the drawing frame to place the fibers parallel and even; without good drawing, long draft will not produce fine yarn.



Four-roll drawing frame with common fluted bottom rolls and cushion top rolls.

Countless experiments have been carried with the purpose of eliminating the entire drawing process, going directly from the card to the roving frame. It is completely possible to spin fairly fine counts by this method, and the yarn strength may be maintained. However, the strength is held up to former standards by the use of greater twist at the spinning frame, which means that the front roll speed must be reduced and therefore the production per spindle lowered. In appearance the yarn will never be as good, lacking luster and smoothness due to the increased number of fiber ends projecting from the yarn strand. The feel or handle of the final fabric will also be more harsh due to the required additional twist. Perhaps only one process of drawing should be used, but certainly drawing should never be eliminated entirely when appearance is to be a selling factor.

The drafting capacity of the drawing frame is not important, as is the case of roving and spinning. By that is meant that there have not been any attempts to design and construct drawing frame drafting assemblies possible of high drafts. This is due to the fact that there is no need for high drafts on a drawing frame because of the limits of capacity on the card and the roving frame. As the card cannot produce good sliver much heavier than 60-grain sliver, and because the roving frame requires a minimum of 40-grain sliver at the back rolls, there is nothing to be gained by long draft on the processes between the two. As long as the drawing frame will draft sufficiently to reduce the total weight of the ends fed back down to the weight of one individual end, it is generally considered as completely satisfactory. Long draft is worthwhile economically only when it enables a precedent process to produce a heavier weight of stock, and thereby increase the productive capacity of that unit so that less equipment will be needed to produce a same amount of yarn. With the card held to 60 grains, there is no point in long draft until the roving frame.

However, the ability of the drafting unit of the drawing frame to draft fibers and to hold the fibers with close control is of utmost importance. Fiber control, the drafting of long fibers without breakage, the holding in position of the short fibers, and the general movement of all fibers without slippage, has been the subject of considerable experimentation in the past few years. With cotton, the stress of fiber control is concerned with the manipulation of the short fibers and the exertion of sufficient control over them. Excessive fly, uneven sliver with high variation, and poor parallelization of fibers with the strand of sliver, are all indications of poor drafting conditions.

The principal element in determining fiber control during drafting at the drawing frame lies in the size and type of rolls used. The drafting assembly should be selected, not for the amount of draft possible, but for the control during drafting. There are two types of rolls which may be specified, and, of course, these rolls may be made in any size or diameter required. Either metallic rolls, top and bottom or common fluted bottom rolls and resilient top rolls may be used on either four-roll or five-roll drawing elements.

Metallic rolls have been in use for many years with the trend today swinging in favor of common rolls and cushion top rolls. In fact, there are very few new frames built today with metallic rolls. Metallic rolls are machined with very deep flute on both top and bottom rolls and are fixed in the frame so that the flutes of one roll fit into the spaces of the other.

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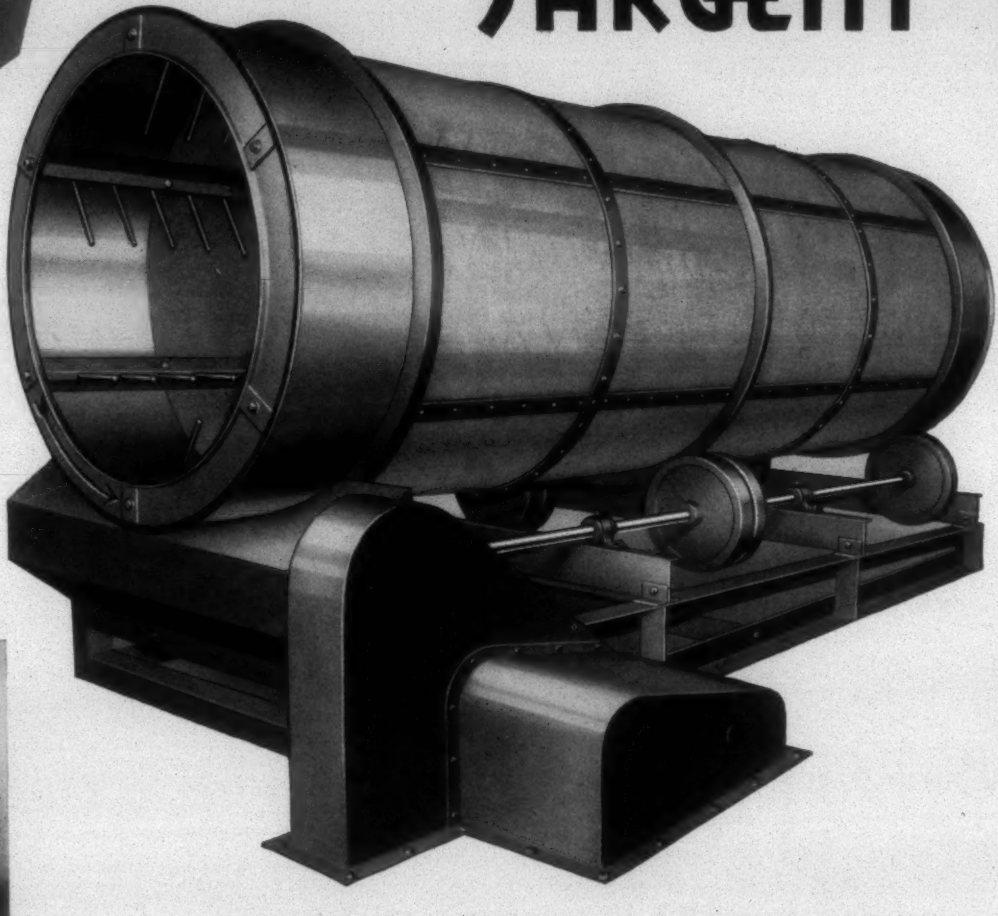

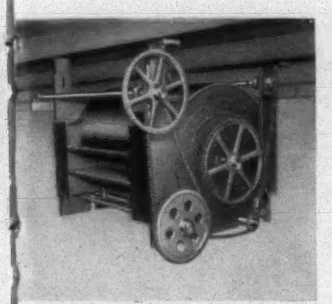

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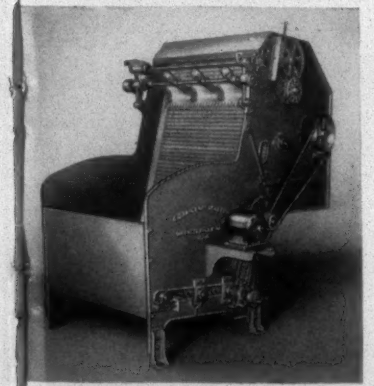

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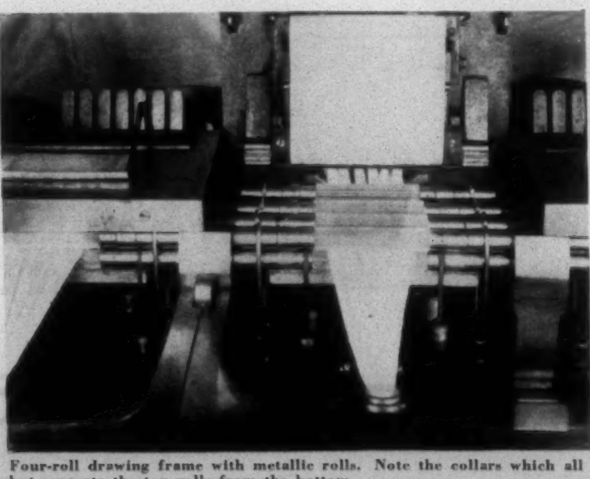
tom of the spacing or groove of the other, both rolls have collars at outside of the bosses. As the flutes of the two rolls are practically in mesh, in the same manner as two gears mesh, the stock does not travel in a straight line but must follow the lines of the flutes. This curvature, or crimping of the fibers, causes an increase in the effective diameter of the roll so that when figuring roll speed the actual diameter cannot be used. The effective diameter cannot be determined exactly by mathematical calculations as there are several conditions which will cause a change in the diameter for a specific case. Among these factors are fiber fineness, the amount of humidity present, and the depth of penetration of the flutes of one roll into the grooves of the other. However, the general basis followed is to assume that a metallic roll has an effective diameter 25 per cent greater than the actual diameter.

The main objection to the use of metallic rolls is the fact that there is a danger of creating cut sliver. Cut sliver is sliver which has been caught between the flutes of the two rolls and crushed or cut so that a certain percentage of the fibers are broken. While this may occur even with rolls in good condition when settings or speeds are not suitable for the sliver being run, it is particularly noticeable or possible when the rolls are old. What happens is that the separating collars wear down and allow the rolls to come closer. As the spaces between the flutes decrease the sliver is compressed more tightly and eventually fibers begin to break under the added strain. In extreme cases, the flutes of the rolls bottom, or rest on the floor of the groove on the other roll and when this occurs fiber and sliver damage will be extreme. As long fibers are responsible for high yarn breaking strength, cut sliver will decrease the strength of the yarn. The danger of making cut sliver is not when the condition is excessive, for it will be readily apparent then and can be corrected immediately, but when the condition is rather slight and therefore apt to continue for a long period, causing the mill to lose money as a result of premium cotton damaged, a drop in yarn strength, and a decrease in machine efficiency throughout the mill.

Consequently, because of the eventual wear of metallic rolls, and because resilient top rolls and common fluted bottom rolls have been proven capable of better drafting, metallic rolls have generally been discarded. The top rolls may be covered with either leather, cork, synthetic rubber, or a composition of cork and synthetic rubber. Leather has been superseded in most instances by a composition material because a worn leather covering must be remedied by replacing the cot entirely, whereas a composition covering may be corrected by a light buffing. Top rolls must be kept free from scratches or scuffed spots, or oil, to prevent lap-ups and must also be changed or rebuffed whenever they begin to wear a hollow in the center of the boss.



Four-roll drawing frame with metallic rolls. Note the collars which all but separate the top rolls from the bottom.

Having decided the type of rolls to be specified, the very serious detail which must be settled is that of roll sizes. The primary observation concerning this problem is that there are about as many combinations of roll sizes as there are mills. This is due to the fact that many mill technicians have their own ideas as to the diameter of rolls, and of course, the machine builder must either agree to furnish the rolls requested or else face the possibility of losing the order with the specified diameters. Actually, this variance and individuality work are a disadvantage both to the machinery builder and to the mill. The machinery builder must complete more drafting room work, set up more machine tools for the one order, and issue more departmental special instructions when roll diameters are not standard, and must design proper gear ratios to accommodate roll spread and the distances between the lines of rolls. All of this work tends to make the cost of new drawing high, an evil both to the mill and the machinery manufacturer. On the other hand, there are certain draft break-ups required for certain roll diameters; and the specific break up of the draft can be fixed only by considerable experimentation. If there were only a few standard combinations of rolls used, the manufacturer could compile such data and submit it to the mill for primary tests; when the machinery builder is faced with untold combinations the undertaking becomes of such magnitude as to be hopelessly discouraging. The task then becomes the responsibility of the mill, and must be carried out to a conclusion if the maximum potential uniformity of the sliver is to be obtained. Again, a very few combinations of rolls are all that are required to suit the conditions in any mill, taking in all considerations of staple length, fiber diameter, and the type of fiber and condition of fiber to be processed.

Contrary to the general belief, the diameter of the roll does not have any direct effect upon its drafting capabilities. Tests made, using such laboratory instruments as a sliver tester and microscope, have led research workers to the conclusion that rolls size is insignificant in so far as ability to grip and control fibers are concerned, keeping within practical limits, of course. It was found that a $1\frac{5}{8}$ths-inch top roll on a $1\frac{1}{3}$-inch bottom roll does not have more than two teeth or flutes in contact with the top roll at any one time, and that a seven-eighths-inch bottom roll and a $1\frac{1}{16}$ths-inch top roll show exactly the same condition. Therefore the grip of the rolls is not altered by the size of the roll diameters; it follows that the drafting action will not be changed. Tests of sliver evenness and fiber arrangement have borne out this contention. However, drafting action is not the only consideration and while the use of a large roll does not show any advantage in this respect. It definitely possesses other desired qualities over a smaller roll. Of the two, the roll having the larger diameter at the same surface speed, will be stronger and less liable to distortion and will not be bent or damaged as easily. At the same surface speed it will have a lower angular velocity and therefore is less wearing on the bearings, displays less tendency to lick up, and will increase the life of the top roll covering. For these

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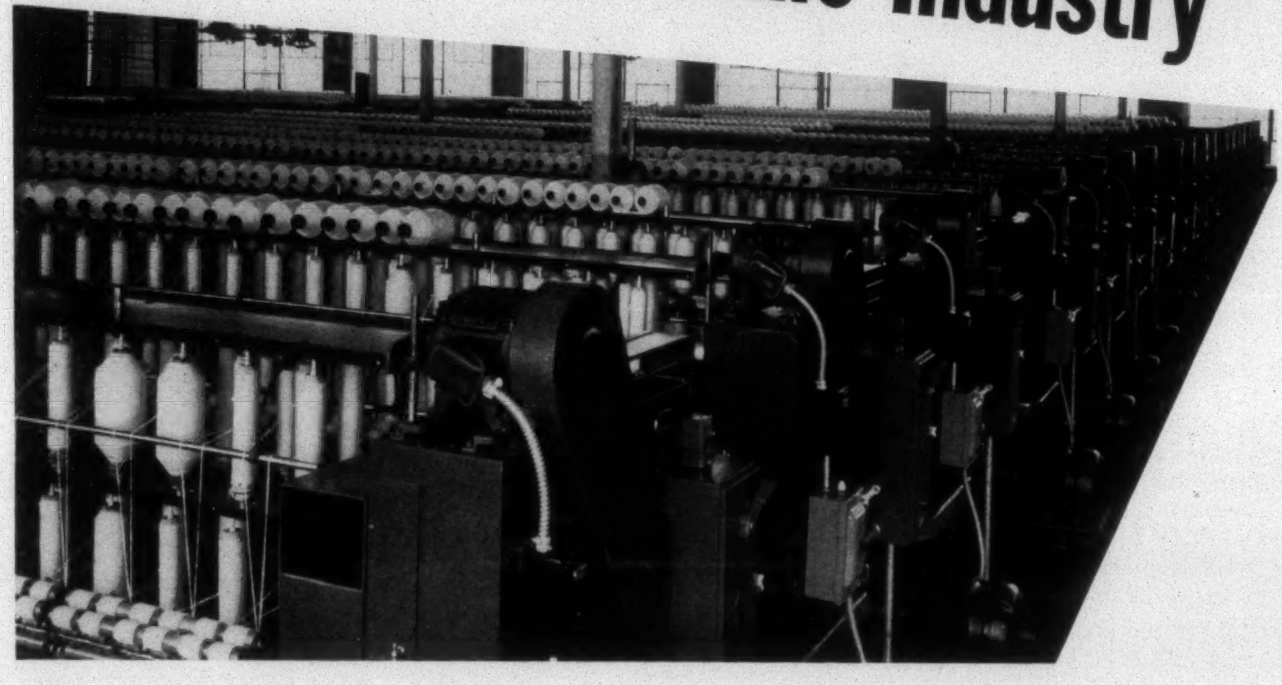

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reasons, the roll should always be as large as is possible within limits of practicability.

What determines the practical limits of roll diameter is the settings which must be used between the various lines of rolls. Therefore, before roll diameters are determined, the settings between the rolls must be fixed. Of course, roll settings are set up to accommodate the staple length of the fiber to be drafted, and therefore the type and staple length of the fiber to be processed will be the deciding factor in roll size selection. However, there are other factors influencing roll settings, and therefore roll diameters, such as the character of the fiber, the draft between the rolls, the speeds of the rolls, type of rolls, and the humidity present in the room. The process and the weight of sliver also have an effect upon roll settings and it will be found that a breaker drawing frame processing card sliver will have different roll settings than the finisher drawing on the same stock. Drafting combed sliver will require different settings than drafting card sliver even though the nominal staple length is the same. The harsher cottons, such as Arkansas, Arizona, and irrigated staple require wider roll settings than will a softer cotton such as that grown in Mississippi or Georgia. Other reasons for setting rolls wider will be the use of old rolls which have lost the sharp edges of the flutes and therefore cannot grip the fibers firmly. Low humidity, high roll speeds, and tight weighting of the top rolls will also make wider roll spreads necessary.

It has already been pointed out that fiber control, and not high draft, is the primary requirement for a successful drawing process. Fiber control, using the conventional drafting assemblies found on drawing frames, is dependent upon the roll settings, particularly upon the setting between the front and second lines of rolls. Rolls should be used here that will allow close settings, for the closer the setting the greater will be the fiber control and the more uniform will be the sliver, as long as there is not any slippage.

Slippage is an unregulated movement of the fibers within the strand of sliver and is an inherent cause of sliver unevenness; however, it is sometimes difficult to discover the cause for the occurrence of slippage. The character of the cotton, perhaps a lack of complete mixing and blending, high roll speeds insufficient top roll weighting, or rolls in poor condition, will all cause slippage. When slippage occurs it may generally be corrected by widening the roll spread, even though the closer setting would otherwise produce more even sliver. Thus it can be seen that roll setting corrective means to eliminate defects in sliver caused by other factors. Slippage can generally be detected by an examination of the web of sliver as it emerges from each line of rolls. The web is examined, with particular attention being paid to the underside, by taking out the top rolls one at a time, starting with the front line. Each time a roll is taken out a few feet of sliver should be run and checked closely. If there is not any slippage the under side of the web will be as smooth as the top but if slippage is occurring then the under side will be wrinkled as the under side will be delivering more than the upper. This condition can then be checked while taking steps to correct the trouble. A wider roll setting, more weight on the top rolls, less speed, or a reduction in draft will all tend to stop slippage but it may take more than one corrective measure to stop slippage altogether.

Slippage may also be found when metallic rolls are used, although it will be more difficult to detect. The top roll is geared to the bottom roll and cannot slip, as can the resilient top roll, but the fibers can slip between the flutes of the top and bottom rolls. Again remove the top rolls one at a time, running a few feet of sliver every time a roll is removed, and check by holding the web up to a strong light. The presence of thick dark places is an indication that the setting is too close, because the dark spots show where the fibers have been plucked and pulled forward through the flutes of the rolls. It is necessary to make this examination by using a strong light because the wrinkled surface put into the web by the metallic flutes will otherwise obscure the defects.

Due to the many variables that exist, it is impossible to predict beforehand exactly what the roll settings will be for a given mill condition. However, using a large number of extensive and carefully taubulated mill tests for a basis, roll settings have been determined which will serve as a bench mark for actual mill settings, and which may be used in calculating the correct roll diameters for a given staple length. By staple length is meant the length of the fiber measured at the finisher drawing process, not that which is nominal at the bale. It has been an accepted fact that the staple length at the finisher drawing will be from five to ten per cent shorter than that at the bale, due to fiber breakage at the picker and card.

The basis for roll selection is a four roll drawing frame with fluted bottom rolls and resilient top rolls processing carded sliver. The settings for combed yarn will be $\frac{1}{16}$th of an inch closer in each case, while metallic rolls will be set $\frac{1}{16}$th of an inch closer. The rule is as follows: add $\frac{3}{16}$ths to the length of staple for the setting between the front and second roll, center to center, three-eighths plus the length of staple between the second and third roll, and three-quarters of an inch plus staple length between the third and back rolls. Following this rule a table of roll settings can be set up and accepted as standard, in so far as calculating roll diameters is concerned.

ROLL SETTINGS FOR CARDED COTTON

Staple Length	Fluted Rolls Front to Second	2 to 3	3 to 4	Metallic Rolls Front to Second	2 to 3	3 to 4
⅞"	$1\frac{1}{16}$"	1¼"	1⅝"	1⅛"	$1\frac{5}{16}$"	$1\frac{11}{16}$"
$\frac{15}{16}$"	1⅛"	$1\frac{5}{16}$"	$1\frac{11}{16}$"	$1\frac{3}{16}$"	1⅜"	1¾"
1 "	$1\frac{3}{16}$"	1⅜"	1¾"	1¼"	$1\frac{7}{16}$"	$1\frac{13}{16}$"
$1\frac{1}{16}$"	1¼"	$1\frac{7}{16}$"	$1\frac{7}{16}$"	$1\frac{5}{16}$"	1½"	1⅞"
1⅛"	$1\frac{5}{16}$"	1½"	1⅞"	1⅜"	$1\frac{9}{16}$"	$1\frac{15}{16}$"
$1\frac{3}{16}$"	1⅜"	$1\frac{9}{16}$"	$1\frac{15}{16}$"	$1\frac{7}{16}$"	1⅝"	2 "
1¼"	$1\frac{7}{16}$"	1⅝"	2 "	1½"	$1\frac{11}{16}$"	$2\frac{1}{16}$"

Using this table of roll settings for the various staple lengths as a base, roll diameters can be specified. It should be remembered in each case that the roll diameter should be as large as practical. Also, the rolls must be small enough so that when set at the recommended distance there will be at least $\frac{1}{16}$th of an inch clearance between the two lines. This clearance is necessary as otherwise fly will be troublesome, and because if the space is less there is a possibility of damage to the rolls if and when a lap-up occurs.

Therefore, the bottom rolls must be of a size in which the diameter, or one-half the combined diameters, plus a clearance of $\frac{1}{16}$th of an inch is less than the staple length plus the required setting over the staple length. It is readily apparent, in following this formula, that a 1⅜ths diameter rolls may be used for both the third and fourth lines of bottom rolls, even for seven-eighths-inch staple cotton. This roll size, 1⅜ths-inch diameter, may be adopted as standard for all cotton staples.

The critical roll diameters are the first and second lines;

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Yes, you've got to give the palm to Foster 102 for its flexibility in performance and product. And here's why . . .

One-fibre specialization in the textile industry has gone the way of the one-horse shay. Monogamous mill marriages to cotton, wool or worsted have been broken up. Cotton mills are now running worsted or blended yarns, while woolen and worsted mills are producing blends of many different fibres, both natural and synthetic.

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the first because the roll diameter should be large enough to obtain a high productive speed, or a high surface speed, without the necessity of a high roll speed. The second roll must be small enough in diameter to permit the close setting required between the two. Using the correct setting over staple length for the front and second rolls of $\frac{3}{16}$ths of an inch, the roll sizes may be calculated as follows:

Staple Length	Staple Setting	Front Roll Second Roll		Clearance
$\frac{13}{16}$"	$\frac{13}{16}+\frac{3}{16}=1$" c. to c.	$\frac{1+\frac{7}{8}}{2}$	+	$\frac{1}{16}=1$"
⅞"	$\frac{7}{8}+\frac{3}{16}=1\frac{1}{16}$	$\frac{1+\frac{7}{8}}{2}$	+	$\frac{1}{16}=1$"
$\frac{15}{16}$"	$\frac{15}{16}+\frac{3}{16}=1\frac{1}{8}$	$\frac{1\frac{1}{8}+1}{2}$	+	$\frac{1}{16}=1\frac{1}{8}$"
1"	$1+\frac{3}{16}=1\frac{3}{16}$	$\frac{1\frac{1}{8}+1}{2}$	+	$\frac{1}{16}=1\frac{1}{8}$"
$1\frac{1}{16}$"	$1\frac{1}{16}+\frac{3}{16}=1\frac{1}{4}$	$\frac{1\frac{1}{4}+1\frac{1}{8}}{2}$	+	$\frac{1}{16}=1\frac{1}{4}$"
$1\frac{1}{8}$"	$1\frac{1}{8}+\frac{3}{16}=1\frac{5}{16}$	$\frac{1\frac{1}{4}+1\frac{1}{8}}{2}$	+	$\frac{1}{16}=1\frac{1}{4}$"
$1\frac{3}{16}$"	$1\frac{3}{16}+\frac{3}{16}=1\frac{3}{8}$	$\frac{1\frac{1}{4}+1\frac{1}{8}}{2}$	+	$\frac{1}{16}=1\frac{1}{4}$"
$1\frac{1}{4}$"	$1\frac{1}{4}+\frac{3}{16}=1\frac{7}{16}$	$\frac{1\frac{1}{4}+1\frac{3}{8}}{2}$	+	$\frac{1}{16}=1\frac{5}{16}$"

It will be noted that the roll sizes fall into four groups, each group capable of handling a certain range of staple lengths without difficulty. There is one complication in the third group, having a $1\frac{1}{4}$th-inch front bottom roll and a $1\frac{1}{8}$th-inch second bottom roll, in that the top roll diameter of the second line will not be practical. For this roll diameter a $1\frac{3}{16}$th-inch top roll would have to be used. Where top roll coverings today are almost always of a composition material which lends itself to buffing, the $1\frac{3}{16}$th-inch roll would cause the loss of long roll life which is so important economically, and which is such an advantage of this type of roll. A $1\frac{3}{16}$ths-inch roll after two or three buffings, would be brought down to a $1\frac{1}{8}$th-inch diameter and would then be the same diameter as the bottom roll. Identical diameters, top and bottom, are to be avoided due to the probability of fluting or grooving of the top roll covering, and therefore the diameter of the second bottom roll should be reduced to one inch. This would allow the $1\frac{3}{16}$ths-inch top roll to be buffed until it is $1\frac{1}{16}$ths-inch before recovering will be necessary.

Taking the above into consideration the following roll diameters, top and bottom, can be recommended as practical and therefore worthy of adoption as standard.

STANDARD ROLL SIZES

		Fluted Rolls				Metallic Rolls			
Staple		Front	2nd	3rd	4th	Front	2nd	3rd	4th
⅞ and under	Top	$\frac{31}{32}$	$\frac{31}{32}$	$1\frac{3}{16}$	$1\frac{3}{16}$	1	⅞	$1\frac{1}{8}$	$1\frac{1}{8}$
	Bottom	1	⅞	$1\frac{3}{8}$	$1\frac{3}{8}$	1	⅞	$1\frac{3}{8}$	$1\frac{3}{8}$
$\frac{15}{16}$" to 1"	Top	$1\frac{3}{32}$	$1\frac{3}{32}$	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{1}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{8}$
	Bottom	$1\frac{1}{8}$	1	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{1}{8}$	1	$1\frac{3}{8}$	$1\frac{3}{8}$
$1\frac{1}{32}$" to $1\frac{3}{16}$"	Top	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{1}{8}$
	Bottom	$1\frac{1}{4}$	1	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{1}{4}$	1	$1\frac{3}{8}$	$1\frac{3}{8}$
$1\frac{1}{4}$" up	Top	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{3}{16}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{1}{8}$
	Bottom	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{3}{8}$

Stress Value Of Pacific Evenness Tester

The importance of the new Pacific evenness tester as a measuring instrument in both manufacturing control and research in the textile industry was brought out Sept. 13 by Robert C. Wilkie, director of engineering research, Pacific Mills Research and Technical Laboratories, Lawrence, Mass., and William E. Shann, assistant director, in a paper read before the Fiber Society at the Bureau of Standards, Washington, D. C. The outcome of eight years of study and development in the laboratories and plants of Pacific Mills, it is the only available instrument that provides a true basis for evaluation of fiber content, according to the authors of the paper.

"Its primary function is to accurately establish under constant pressure the cross sectional area of minute increments of a textile stand," it was stated. "The true recording of such a cross sectional area enables us to establish the uniformity and weight of the given material tested. These two functions are established simultaneously in any given test." The Pacific evenness tester is comprised of four principal parts—tongue and grooved rolls, magnetic displacement gage, power unit, and a photo-electric milli-ammeter recorder.

The advancements in the rolls represent: (1) A precision technique of making and mounting the rolls and having them rotate to an accuracy within two ten thousandths of an inch total accumulated eccentricity. (2) The establishment of a set of groove widths to accommodate all phases of textile processing. (3) The establishment of a magnitude of pressure sufficient to insure duplication of testing, regardless of atmospheric conditions, moisture content of the test material to the extent of being wet, oil or finish—even with uneven application, twisted or open sliver, color or loftiness, tension, etc. (4) The establishment of a proportional system of pressure weighting so that all tests made are in direct relationship to one another. Slivers of yarns of marginal size may be tested in two different groove widths and identical results will be obtained (the same cross sectional area) per cent unevenness and weight.

The magnetic displacement gage enables us to eliminate the old rack and pinion system and contributes to our ability to increase the speed of testing to 12 times the original, according to the paper. By the use of an actual micrometer, the strain gage is always operated about its zero or equalized position. The micrometer reads in half thousandths of an inch and establishes the instrument setting of the displacement of the tongued and grooved rolls for any given test. This displacement gage micrometer places the graph of either a 1/100s worsted yarn or a four-ounce worsted top on the paper of the recorder.

"The photo-electric recorder is truly a remarkable piece of equipment," it was stated. "Tied in with the pickup and power unit, its range of magnification and speed of response is uncanny. We use but a small portion of its possibilities, namely, 90-X to a 1,000-X magnification. Its linearity throughout the entire width of the chart paper, and the absolute absence of drift represents perfection, at least for our specific use. The four-inch width graph paper and the seven stages of magnification enables the recording of minute detail and an ease of evaluation. Incidentally, this is a good opportunity to highly commend the General Electric Co. for its co-operative effort. It was only by our mutual effort that the strain gage, power unit, and photo recorder were made suitable for this requirement."

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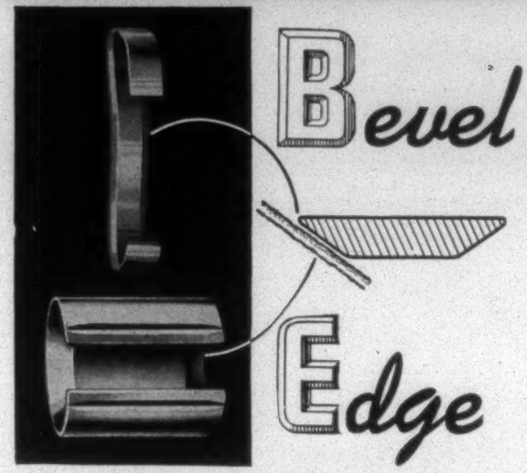

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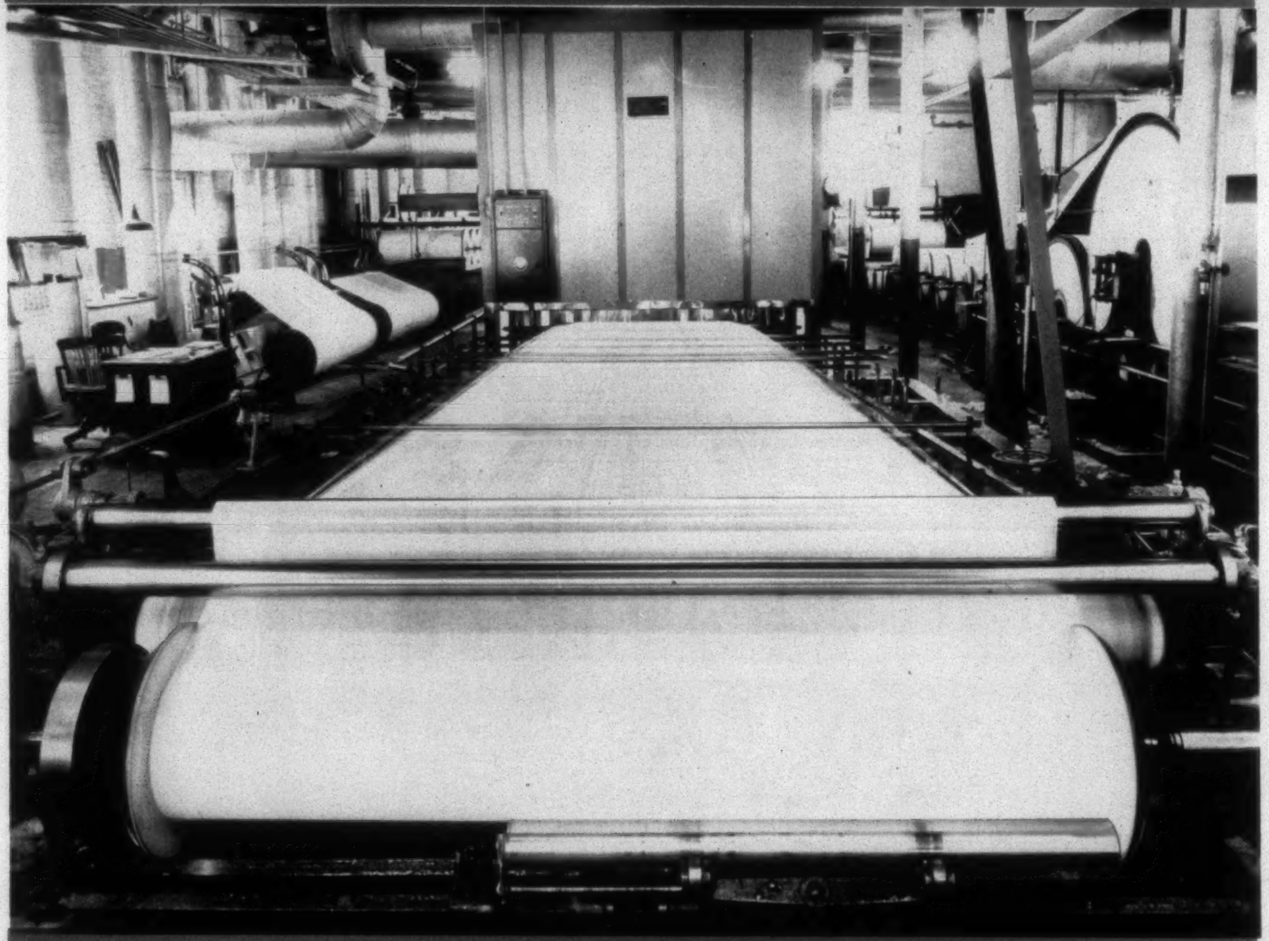
A Report on Uxbridge "Gentle-Air"

at DOMINION

Dominion Textile Company, Limited, Sherbrooke Branch



This "Gentle-Air" is sizing nearly 10,000 ends of 36/1's cotton at triple the speed of older slashers in the same room.

Sixteen 54½" section beams at the rear supply the yarn for the 109" loom beam in the foreground.

A wet-splitting device minimizes the tearing action and prevents yarn damage when the size envelope is opened at the front end.

The perfectly sized yarns weave better; fabrics are improved because the yarns are not flattened out during the drying process.

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Industrial & Woven Application Of Dynel

By ELDON STOWELL, Textile Fibers Department
Carbide and Carbon Chemicals Division, Union Carbide & Carbon Corp.

IN our development of dynel, we began with the assumption that undyed, yet finished and dimensionally stabilized, fabrics were the easiest ones to achieve commercial success. This proved to be true especially in the case of industrial fabrics, which is the first of a group of materials I wish to take up. The value of dynel goes back primarily to the intrinsically high chemical resistance of the fiber itself. Acid and alkali resistance in a material is of great value to industry. For example, let's look into three typical uses. One is work clothing. This application reached commercial success practically with the first shipment of fiber. Clothing of dynel, whether it be shirts, pants, or coveralls, is now being used in chemical and petroleum plants in industry and in several places by the government. The garments are easily washed, have excellent abrasion and, most important, last at least ten times as long as a conventional cotton garment on laundering.

In another industrial use, bags for domestic water softener equipment, dynel provides trouble-free-service to the householder even in direct contact with hard water and the softening chemicals. Rust formations and deposits of calcium or magnesium compounds can be removed by acid treatment, if necessary, without damaging the bag. Incidentally, the volume of water softener bags is quite large. I never realized there was so much hard water in this country.

The third typical industrial use is filter cloths. Dynel filter cloths in all standard constructions have been on the market for about six months. These have proven especially valuable in a dyestuff and pigment filtration, especially where hot acid is present. I guess that filter cloths is the original proving ground for most synthetics but dynel does appear to solve practically all chemical filtration problems.

Laundry nets have proven very successful in limited tests. By using dynel dye nets, three hosiery companies have advised that their percentage of seconds has been considerably reduced. Why, we might ask? Due to dynel's softness, strength, and less tendency to snag. Also, the fact that dynel—not absorbing color at normal hosiery dye temperatures—is easily cleaned and this, also, prevents dye bath contamination. I might mention a few more industrial applications—auto window channels, dust fume bags, tarpaulins, outdoor furniture. Wet crush resistance, fire, and mildewproofness certainly aid in the success that we have so far.

Of course, industrials are only a part of the varied woven fabrics into which dynel is going. We have shown that dynel can be dyed and finished. We have made dynel draperies. These have been very successful, especially in commercial and other places of public assembly. Their unique advantage is the non-support of combustion. You know what fireproofed fabrics are like—usually pretty stiff and unattractive. Dynel has its own built-in fire extinguisher—vinyl chloride. The washability feature, good abrasion, and that non-creep or anti-shrinkage factor are present with dynel. In the dynel drape installations thus far, I do not believe there has been any case of dimensional change. These fabrics have been varied—plain and jacquard fabrics for drapes; boucle and ratine yarns for casement cloths, marquisette curtains, and also monks cloth for wall covering. We haven't had dynel household goods over the counter yet, for we are concentrating on large industrial fire-safe outlets. There are a lot more so-called household uses. Bedford cord in automobiles are being evaluated in cars, to mention one.

Considerable work has been done with innerliner and the so-called warmth fabrics. As has been mentioned, dynel has a unique and irregular cross section. This makes it difficult for identification but it does give warmth and bulk without weight. The possibilities here are tremendous. Snow and ski wear innerliners, baby and household blankets, stadium boots, and a host of other possible uses. Practically every use for napped and pile fabrics could come into category. We can at this point say corduroys look very good. The fact that dynel can be easily washed, is quick drying, and doesn't stain should make it ideal for children's wear.

Thus far, I have confined my remarks to 100 per cent dynel. It, also, can be used to great advantage with other fibers. We have tried dynel with practically all other fibers. It spins very nicely with wool, viscose, and cotton. I mention these three as our apparel blends have been confined to these. Suitings, sportswear, and slacks made from dynel and viscose are a definite improvement over the viscose-acetate-resin-treated fabric. Why an improvement? Dynel blend fabrics give more warmth and resiliency, in addition to having as good anti-crease properties. Dynel, when used with coarse wools, adds softness, drape and other desirable qualities. For example, a fabric made with 60 per cent 58s grade wool and three-denier dynel is the equivalent in texture to a fabric made from 64-70s wool. Thus, upgrading of wool, dimensional stability, permanent and desired pre-set creases are additional features.

We have found that in blends with cotton and dynel the resultant napped fabric gives a better hand, more fabric life and, in addition, can be ironed equally as well as an all-cotton fabric.

A considerable number of fabrics from pre-dyed yarns have been made. If we maintain correct finishing procedures, dynel can be easily handled. No new fiber, of course, can be run without a lot of headaches of trial and error in dyeing, finishing, and sizing—in fact—all the processes of fabric manufacture. Good progress has been made in overcoming most of the problems.

I want to stress that dynel can be used both alone and in blends with other fibers. The diversity of dynel weaves, constructions, and type fabric is large. The products resulting are encouraging and we believe will result in large commercial sales.

Paper presented before the Oct. 4, 1950, meeting of the American Association of Textile Technologists at the Builders Club, New York City.

SO YOU WANT GOOD CLOTH!

By FRANK D. HERRING

Part 17 – The Stafford Thread Cutting Device

FIRST, I would like to correct the erroneous opinion held by a lot of loom fixers, and other mill men, regarding the Stafford thread cutting device. They believe, due to the name Stafford, that this device is made by some company other than the Draper Corp., which builds the Draper loom. This device was developed by the Draper Corp., and derives its name, Stafford, from the man who developed it, or at least had the leading part in its development. At many different mills I have heard the remark made that the device will never work satisfactory on a Draper loom because it is composed of outlaw parts, meaning not made by the loom builders. It is true that all the parts are not interchangeable on all the different models of Draper looms, and the settings will differ slightly on the different models, but the loom builder, Draper Corp., can furnish this device to work satisfactory on all its different models of looms. I would suggest that any mill having trouble with this device call in one of the loom builder's service men, who will iron out their troubles.

It is the writer's opinion that the above mentioned is by far the most satisfactory, and the most economical, arrangement yet devised for handling this very difficult problem on automatic Draper looms. The positioning, pinning and tightening the hopper stand in place was covered in previous chapter. To apply and adjust the Stafford thread cutting device, proceed as follows: Put the transferrer stud in place on the hopper stand and tighten securely. Next, put the hold back pawl in place on the stud provided for it on the hopper stand. Assembly all parts required onto the transferrer, including the latch stand and the latch finger. Next, put the transferrer in place on the transferrer stud, then put the transferrer spring and spring collar in place and adjust the spring to the desired tension. (I prefer a strong tension on the transferrer spring; this will prevent the transferrer from forcing the ingoing bobbin too deep into the shuttle, thereby causing faulty transfer, broken bobbins, and some-bracket, and make the necessary filing adjustments, if needed, to a point where it will properly contact the bunter, and turn the lay to front center position; this will put the transferrer down in transferring position. Then adjust the set screw in the latch stand to a point where there will be one-eighth of an inch clearance between the transferrer hammer and the rings on the bobbin in the shuttle. (It is vitally important to bear in mind the necessity for setting the transferrer, and securing the proper adjustment on the latch finger, in relation to the bunter, before applying the other parts of the Stafford thread cutting device, because the latch finger is used as a gauge, in relation to the bunter, for obtaining the proper setting on other parts.)

Next, place empty bobbin in the battery, and turn the bobbin disc until the rings on the bobbin rests against the bobbin guide. Press down slightly on the transferrer until the feed pawl rests against the proper tooth in the rachet gear on the bobbin disc, and the bobbin is held firmly against the bobbin guide. With the transferrer and the feed pawl in this position, there should be one-eighth of an inch clearance between the bottom part of the transferrer and the hopper stand, if not, the transferrer should be removed and filed the necessary amount at the point of contact. Next, adjust the eccentric pin, on which the hold back pawl is mounted, for $\frac{1}{16}$ of an inch play, backward and forward, on the bobbin disc. (The older model looms were not equipped with the hold back pawl eccentric pin, but they can be obtained from the loom builders, and they are much better than the stationary pins. The stationary pins can be driven out with a small center punch, and the eccentric pin put in its place.)

The smooth end of the eccentric pin, on which the pawl is mounted, should project towards the front of the loom. Next, assemble the shuttle feeler onto the shuttle feeler brack, and make the necessary filing adjustments, if needed, so that the shuttle feeler will work perfectly free, up and down, after the bushing bolt has been securely tightened. Put the shuttle feeler in place on the loom side, and be sure that the finger on the shuttle feeler is in place between the feeler finger and the starting rod spring hook, with the feeler finger loose on the starting rod, then tighten the bolts in shuttle feeler bracket lightly.

Next, raise the latch finger, by hand, and turn the lay forward until it contacts the bunter, but does not depress it. Brake the loom in this position. Hold the shuttle feeler, by hand, up against the stop on the shuttle feeler bracket, and adjust the bracket to a point where the bottom part of the shuttle feeler will clear the lay end one-eighth of an inch, as shown in Fig. 60. At the same time adjust the bracket for the correct clearance between the tip of the shuttle feeler and the smooth face of the back box plate, indicated by X mark in Fig. 60. This clearance is determined by the size of the shuttle being used. For a shuttle two inches wide, clearance should be three-eighths of an inch. Shuttle $1\frac{7}{8}$ inches, clearance should be $\frac{5}{16}$ths of an inch. Shuttle $1\frac{3}{4}$ inches, clearance should be one-quarter of an inch. Shuttle $1\frac{1}{2}$ inches, clearance should be $\frac{3}{16}$ths of an inch. (The above refers to the over-all outside width of the

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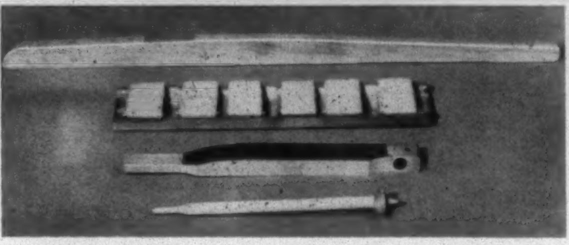

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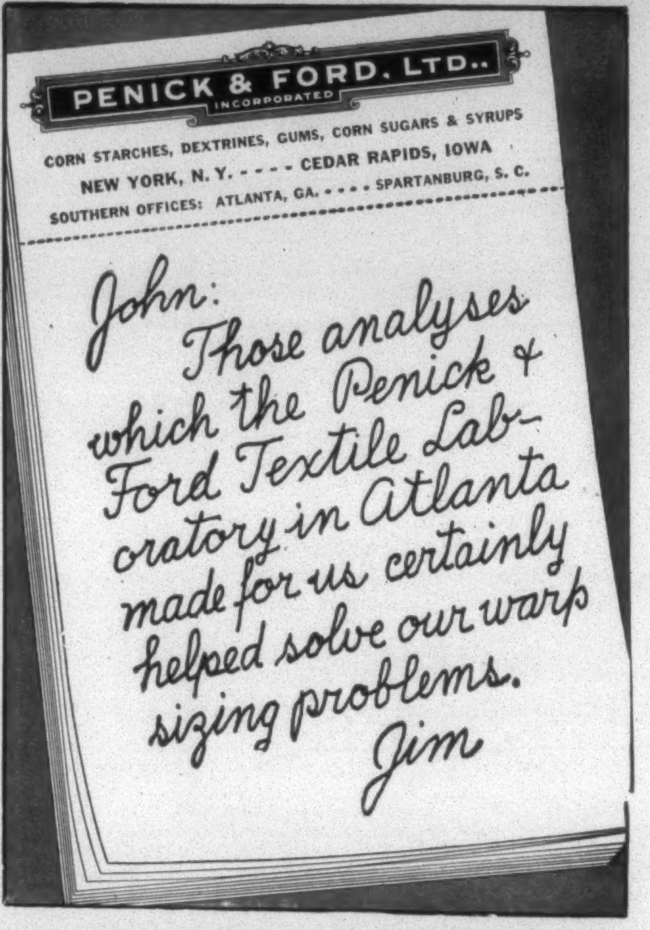

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shuttle.) After these adjustments are made tighten the shuttle feeler bracket bolts securely. Next, allow the shuttle feeler to drop back in rest position, and hook the starting rod spring to the starting rod spring hook. Raise the shuttle feeler, by hand, about two inches and tighten the set screws in the feeler finger. Allow the shuttle feeler to drop back in rest position; in this position the shuttle feeler should be held up about one-half of an inch by the starting rod spring hook, from the extreme bottom stop position. Next, raise the shuttle feeler to its extreme top position and check to be sure that the tip end of the starting rod spring hook clears the shuttle feeler hub. (The late model looms have an adjustable feeler finger; they are made in two pieces, and can be drawn in or out to make the above adjustment. But with the one-piece feeler finger it would be necessary to remove the starting rod spring back, and file off the required amount to make the proper adjustment.)

With the lay in the same position, bunter contacting the latch finger, and the shuttle in the battery end of loom, and the shuttle feeler up in transfer position, attach the latch depressor to the shuttle feeler and adjust it to a point where the top end of it will clear the front box plate one-quarter of an inch, then tighten it securely. (The above setting applies to the latch finger which has the adjustable stud attached to it. By moving the stud backward or forward the latch finger is put in the proper alignment with the bunter. On the older type latch fingers which do not have the adjustable stud, this alignment is made by raising or lowering the latch depressor.) When the latch depressor is mounted on the shuttle feeler, be sure that the adjusting stud in the latch finger is put in place in the slot in the latch depressor.

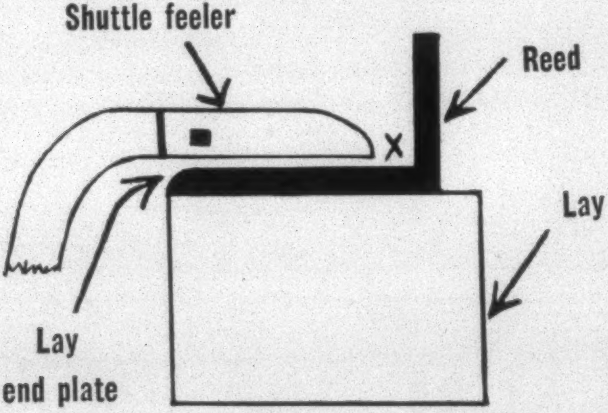

Fig. 60.

Shown in Fig. 61 is the complete Stafford thread cutting assembly, with the double-trip knife closing device. Put the filling slide lever, along with the filling slide lever collar, in place as shown in Fig. 61, then put the slide lever stud in place in the slot in the slide lever, but leave the stud nut loose. Then attach one end of the filling knife carrier lever spring to the stud and secure it in place with small cotter pin, and slip the other end of the spring onto the latch depressor stud. Bolt the slide lever end onto the slide lever, and tighten the belt lightly. With the shuttle feeler up in transferring position turn the lay to a position where the raised latch finger will clear the forward edge of the bunter by one-eighth of an inch (on XD Model looms the bunter should just touch the raised latch finger).

Next, assemble the knife arrangement, as shown in Fig. 61, and place this assembly in the filling knife carrier slide which is attached to the filling knife carrier bracket, then mount the filling knife carrier bracket onto the transferrer stud as shown in Fig. 61. With the lay still in position mentioned above, latch finger one-eighth of an inch from the bunter, push the filling knife slide lever forward and adjust the filling knife carrier bracket and the filling knife carrier slide to a point where the tip ends of the knife assembly will enter, and clear, the holes in the front box plate and the shuttle. Then with knife carrier screw in contact with the front box plate, adjust the screw to a point

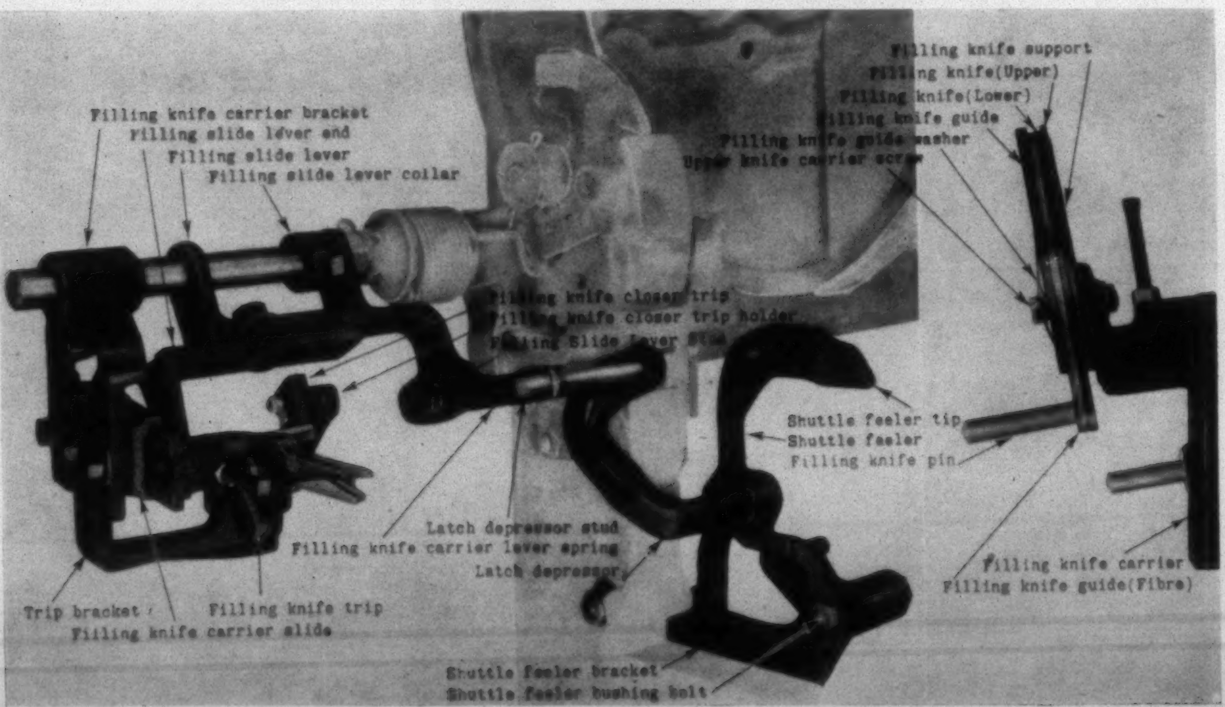

Fig. 61.

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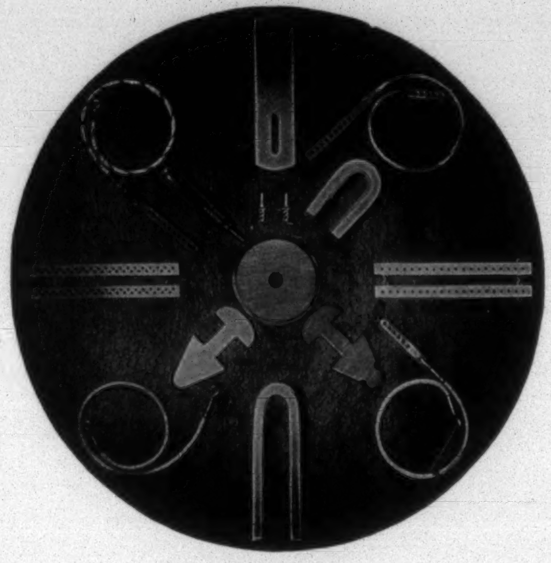

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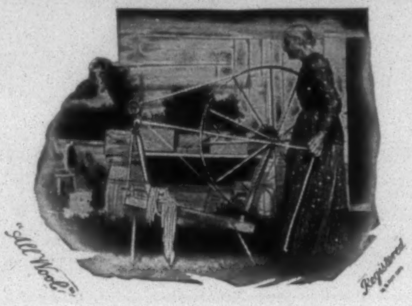

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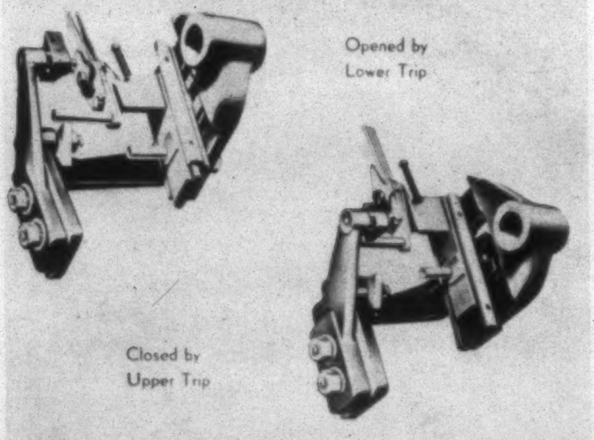
where the tip ends of the knife assembly will project $\frac{1}{32}$nd of an inch past the front inside wall of the shuttle. Pressing the filling slide lever forward, by hand, with the adjusting screw against the front box plate, tighten the filling slide lever stud, left loose when put in place.

Next, assemble the knife opening and closing trips on the filling knife trip holder, and bolt the trip holder to the trip bracket, as shown in No. 2, Fig. 62. Mount this assembly to the filling carrier slide, and adjust it, up or down, so that the filling knife pin will pass over and under the trips, opening and closing the knife, without binding. Next, turn the crank shaft over one complete revolution, placing the shuttle in shipper handle end of the loom and the shuttle feeler back in rest position, then adjust the filling slide lever end to where it will clear the filling knife carrier about one-eighth of an inch. This double trip knife closing device is shown in No. 1 and No. 2, Fig. 62. The cam and lever knife closing device is shown in No. 3 and No. 4, Fig. 62.

The cam and lever device is a later, and much improved, arrangement over the double-trip assembly. On the double-trip device the cutting knife is opened and closed by contacting the cam sides of the trips, and this point of contact between knife and trips is out of direct line with the knife, and the pressure exerted on the knife pin causes the cutting knife to be creened to one side and thereby creating a slight opening between the knives and the fiber knife guide, and sometimes preventing the knives from cutting the filling cleanly and also preventing the severed strand of filling from being gripped and held between the lower knife and the knife guides. It will be noted, No. 3 and No. 4, Fig. 62, that the filling knife lever is in direct line with the cutting knife and is more positive in its action, and does a much better job. When using the cam and lever device the trip bracket, covered herein, becomes the filling knife cam bracket, and is attached to the filling knife carrier slide in the same place as the trip bracket.

Double Trip Knife Closing Device



Cam and Lever Knife Closing Device

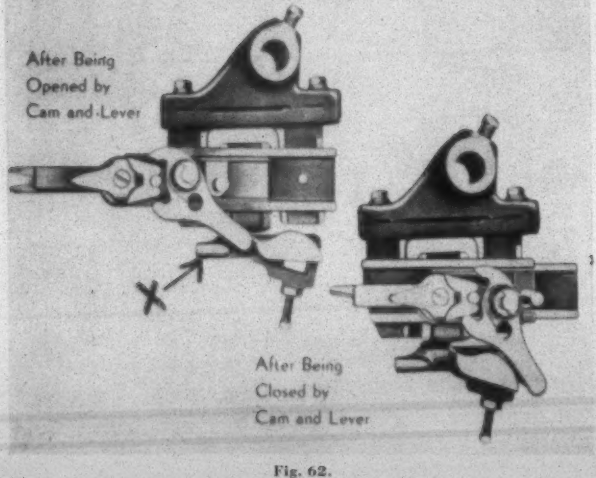


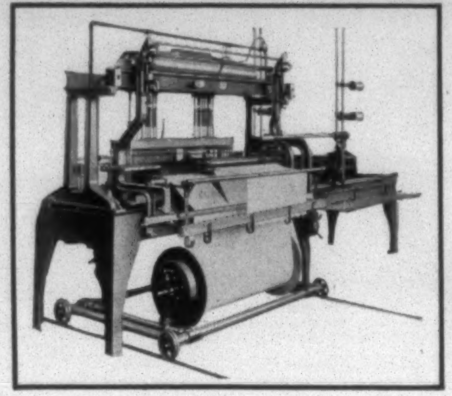
Fig. 62.

When setting the cam and lever closing device, proceed as follows: with the shuttle in battery end of loom and the shuttle feeler indicating a transfer, the lay in position where the bunter clears the raised latch finger one-eighth of an inch, bunter and latch just touching on XD Model looms, and the tip ends of the cutting knives projecting $\frac{1}{32}$nd of an inch past the inside wall of the shuttle; with the stop screw in the filling knife carrier against the front box plate, adjust the filling knife cam bracket to a point where the lug on the filling knife lever will just clear the front tip of the cam, as shown in No. 3, Fig. 62, and rest on the shelf, indicated by X mark, Fig. 62, but not ride up on top of the shelf. (Much more will be said about this when we get to fixing the loom and weaving cloth.)

Turn the crank shaft one complete revolution, putting the shuttle in the shipper handle end of loom, and the shuttle feeler down in rest position and check to be sure that the knives have been completely closed by passing back under the cam. If the knives are not completely closed, this adjustment can be made by slightly lowering the cam bracket. In rest position, the lug on the knife lever should clear the cam about one-eighth of an inch. When using the Stafford thread cutting device the shuttles must have a hole in the front wall for the knives to enter. As these devices are often applied to old looms, using shuttles not made for them, it becomes necessary to cut these holes. Proceed as follows: using the thread groove in the front outside wall of the shuttle as the center point, lay out a rectangle $\frac{9}{16}$ths of an inch wide and $1\frac{1}{4}$ inches long. The right hand boundary of this rectangle should be about $3\frac{1}{2}$ inches from the tip end of the shuttle spur. This will locate the hole near the shuttle eye. Drill a $\frac{3}{16}$ths of an inch hole in each corner of the rectangle. Then cut out the wood inside the rectangle and smooth the hole with sandpaper. Care should be taken to preserve the curve of the holes at the corners, as leaving the corners square would weaken the shuttle wall and cause them to split more easily.

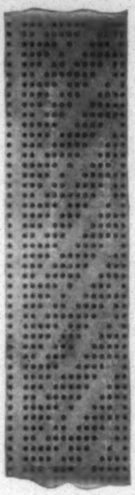
Develop Knot-Tying Machine For Wool

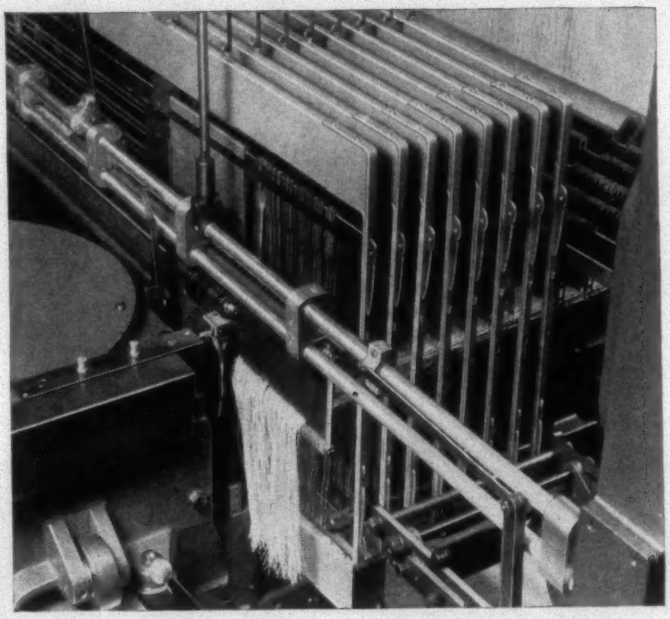
Development of a knot-tying machine for the woolen and worsted industry is announced by the Providence, R. I., research firm of Technical Service, Inc. Working on consignment for a worsted company, Technical Service, Inc., spent three years in developing the machine which does automatically what has always been done by hand. The machine has had a successful test run in the worsted company plant and has been returned to the builders for a final check-up and minor alterations. Running the width of the loom, Technical Service's new machine takes each individual end of the new warp, lines it up with the corresponding end on the used-up warp, and ties an English weaver's knot. This is accomplished at the speed of one knot per second.



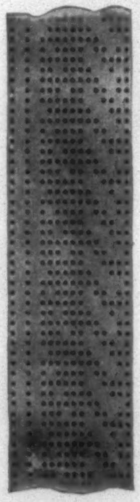
THIS MACHINE WILL DRAW-IN ANY DRAFTABLE PATTERN UP TO 26 HARNESS 6 BANKS OF DROP WIRES, AND REED

BARBER-COLMAN DRAWING-IN MACHINE





FAST! ACCURATE! SAVES TIME! SAVES MONEY!



The strips down the center are photographs of two typical punched metal pattern ribbons which control the machine by determining the elements through which each thread will be drawn. All elements are drawn in one operation.

For practical purposes, there is *no limit* to what this machine can handle. No matter how complicated the pattern, if it can be drafted, the machine will draw it—just as fast and just as accurately as any simple pattern. At the show we demonstrated a plaid that went over 500 threads before the pattern repeated. You can put one, two, or three threads through a single harness eye, if you want to. You can have the dents in the reed drawn regular (like 3-3-3-3) or irregular sequence (like 4-3-1-4-2), or any other arrangement you need. Best of all, you can get your warp ready for the loom in a *fraction* of the time it would take by hand—and repeat it just as quickly any time you like. If you want to save *time* and *money,* investigate the possibilities of this machine at the first opportunity.

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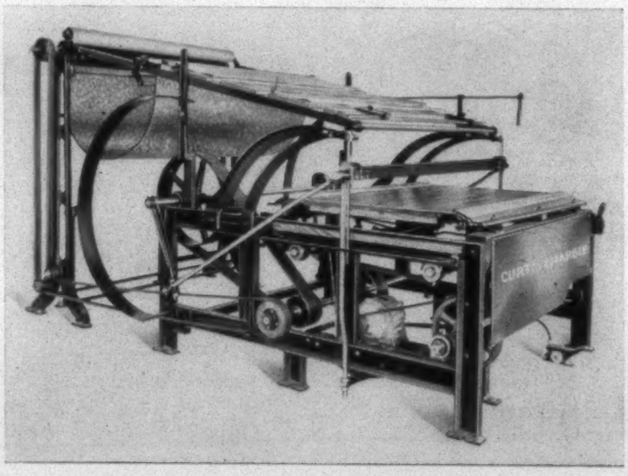

Ball Bearing CLOTH FOLDER

All types of our Folding Machines now have Ball Bearings; they make an easier running machine, need less maintenance, and permit reduced tension on the table springs.

Illustrated is a Cloth Folding Machine for yard folds, with No. 4 Top, Lewis Pneumatic Table Lift, and Motor Drive.

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Bleaching, Dyeing & Finishing

Piedmont Paper Wins A.A.T.C.C. Contest

FIFTEEN hundred members of the American Association of Textile Chemists and Colorists met for the annual national convention Sept. 28-30 at Wentworth-by-the-Sea, Portsmouth, N. H. At the annual business meeting of the association, at which C. Norris Rabold, director of research for Erwin Cotton Mills Co. at Cooleemee, N. C., and A.A.T.C.C. president, presided, the resignation of J. Robert Bonnar as chairman of the general research committee was accepted with regret. His successor will be chosen at the next council meeting Nov. 17 in New York City. The council voted to initiate a student intersectional research paper contest among the senior chapters of the organization and chose Patrick J. Kennedy of E. I. du Pont de Nemours & Co. as national chairman of this contest. The first such contest will be held in 1951. The council also elected William R. Moorehouse of National Aniline Division, Allied Chemical and Dye Corp., Boston, an honorary member of the council in appreciation of his long service as national treasurer of the association. Henry A. Rutherford, head of the department of textile chemistry and dyeing, North Carolina State College, was elected to the Olney Award Committee as the representative for textile education. He succeeds Kenneth Fox, former president of Lowell Textile Institute, now with Burlington Mills Corp.

The technical program included a general meeting on Thursday at which talks were given on "Water Pollution," "The Economics of the Textile Industry," and "Consumer Standards." Nine papers were presented at the cotton and wool group meetings on Friday and ten at the synthetics, and auxiliaries and testing group meetings on the following day. On Friday afternoon the intersectional prize paper contest was held at which six sections of the American Association of Textile Chemists and Colorists competed.

At the corporate member and Olney Award banquet Thursday evening Dr. George L. Royer was named recipient of the annual Olney Medal. This medal is awarded annually for outstanding achievement in the field of textile chemistry. Dr. Royer, who is assistant director of application research in charge of the physical chemistry research section at Calco Chemical Division, American Cyanamid Co., spoke on "The Scientific Approach to the Study of the Coloring and Finishing of Textiles." Dr. Royer's paper is abstracted below.

The processes for the coloring and finishing of textiles have been developed over many years. When one looks at ancient fabrics made by hand centuries ago and at modern machine-made fabrics of today, one cannot help but marvel at the human efforts that have gone into their development. Individual effort and "know-how" are the remarkable aspects of ancient fabrics. Modern fabrics are even more remarkable from the viewpoint of the efforts of the many different individuals who have contributed toward the rapid machine production of fabrics which have outstanding properties of usefulness and beauty. During the time of the development of the textile industry, science has progressed and its developments have contributed to the various phases which are necessary to produce the modern textile. Chemistry and physics, as well as the applied science—engineering, have entered into the development of the machines and the processes of the textile industry, as well as into the manufacture of the necessary raw materials. The development of synthetic fibers and the modifications of the natural fibers have been the result of scientific methods and thinking. Research in organic and physical chemistry has produced our modern synthetic dyes and textile finishes and the application of the principles of physics through the practical fields of engineering has given the textile machinery its electrical and mechanical developments.

Scientific research is not new to the textile field, as scientific thinking and methods have been used since man started to work with machines. The desire to do any operation faster, cheaper, easier, or better than it has been done before requires research. To accomplish these objectives it is not necessary to have large laboratories or men with titles working under the name of research, because for years these have been the aims of the textile industry. Modern industry has become so complex and science has become so extensive in scope that it is no longer humanly possible for one man or group of men to cover all phases and, therefore, specialists have taken their places in sales, production, engineering, development, and industrial research fields.

The outstanding scientific approaches which have been used in studying the application of colorants and finishes to textiles in the last 20 years will be covered briefly in the paper. During this period of time modern concepts of chemistry have been applied to the problems of the textile field with the effect that a better understanding of some of the phenomena has resulted and this information now should be used to aid in the production of better products at a lower cost. It is true that much of this scientific study is learning what the dyer and finisher already know from a practical point of view, but the scientist should now be ready with this background to go forward at a more rapid pace in advancing the textile industry. Synthetic fibers and advances in chemicals, dyes, and resins in the last 20 years have contributed to more satisfactory textiles, but they also have complicated the problems of the textile chemist. A co-operative spirit and understanding between the practical man and the scientist should be helpful in advancing the textile field.

Winners of the annual intersectional prize paper contest were announced at the final banquet by Frank J. O'Neil of Pacific Mills, Lawrence, Mass., chairman of the National Intersectional Contest Committee. Mr. O'Neil emphasized the continued improvement in the quality of the contest papers over the ten-year period during which the contest has been held. First prize was awarded to the Piedmont Section paper, "A Comparison of the Dyeing Characteristics and Related Properties of Rain-grown and Irrigated Cottons." The paper, delivered by Prof. Henry A. Rutherford, head of the department of textile chemistry and dyeing, North Carolina State College, presented information to support the belief that the dyeing difference between rain-grown cotton and cotton grown under irrigated conditions was essentially due to differences in the reflectance from the surface of the dyed fiber. Second prize was awarded to the Rhode Island Section for its paper, "The Continuous Dyeing of Nylon Fabrics." The Philadelphia Section received third place for its paper, "The Relating of Laboratory Exhaust Data to Mill Practice." Abstracts of the contest papers follow:

A COMPARISON OF THE DYEING CHARACTERISTICS AND RELATED PROPERTIES OF RAIN-GROWN AND IRRIGATED COTTON (*Piedmont Section*)—Certain industrial users have encountered considerable difficulty in the processing of cotton grown under irrigated conditions in the United States. For example, a particular difficulty arises from the fact that a rain-grown cotton dyes a fuller shade than a comparable quality of irrigated cotton dyed in an identical manner; this means that mills using both types of cotton frequently are confronted with a problem in obtaining even shades within a lot, or from batch to batch. Prompted in part by the increasing economic importance of irrigated cottons, a study has been made of the chemical properties and other aspects of the two cottons which may have a bearing upon their processing and dyeing differences. An attempt has been made to establish whether these differences are of the kind which are subject to chemical control, or whether they constitute inherent properties of the fibers, and are not subject to appreciable modification. The investigation was divided into five categories, namely, analytical, chemical behavior, processing procedures, dyeing characteristics, and reflectance properties. Comparative analyses of the two cottons were made with regard to: metallic constituents, pectic substance, ash and ash alkalinity, cold and hot water extractable substances, degree of polymerization and rate of attack by hydrochloric acid and by bleaching agents. These analyses indicated that the cottons were substantially alike in all respects except in the amount of substance which could be extracted by water from the raw cottons, and molecular chain length. Although it was found that the rate and degree of pigment agglomeration in the pigment method of vat dyeing was dependent to a considerable extent upon the nature and amount of the naturally occurring extractable impurities, experiments failed to show that it was related significantly to the final depth of shade obtained. Molecular chain length could hardly have been a significant factor in bringing about the shade differences observed in the relatively undegraded cotton being examined. Although these differences in shade were in many cases quite material, it was surprising to find that the amount of dye absorbed by the two cottons under identical conditions was, as determined by spectrophotometric procedure, precisely the same. The observation that no more dyestuff was taken up by one cotton than by the other was further substantiated by a series of exhaust dyeings made with various dyestuffs on the two types of cotton. Thus, differences in shade had to be attributed to one of two causes, distribution of dye within the fiber, or reflectance characteristics of the fiber-dye system. Photomicrographs of cross sections of the dyed fibers showed that the distribution of dye was substantially the same for the two cottons. However, since the apparent differences in depth of shade of the two cottons could be minimized or even made to disappear entirely with a change of viewing angle, it was evident that their reflectance characteristics must be markedly different. Mercerization, which is known to alter reflectance properties, also minimized the shade differences; such optical measurements as could be made, although difficult to interpret, tended to confirm this view. There is strong support for the belief that reflectance from dyed fiber surface is the most important single difference in rain-grown and irrigated cotton, as far as dyeing difficulties are concerned, and is chiefly responsible for their apparently different dyeing properties.

THE CONTINUOUS DYEING OF NYLON FABRICS (*Rhode Island Section*)—Preliminary tests indicate that it is possible to dye nylon fabrics by the use of acid colors, by padding the dissolved dyestuff and steaming in conventional vat dyeing equipment. The chemistry and the physical nature of the phenomena are discussed. Spectrophotometric data are tabulated, showing the color value, wash fastness, influence of variation in length of steaming, influence of acids or assistants, and influence of heat treatments. Common dyeing problems of migration, preferential sorption, warpiness and barre effects are discussed from data obtained during plant dyeings.

THE RELATING OF LABORATORY EXHAUST DATA TO MILL PRACTICE (*Philadelphia Section*)—It has been general practice in the dyestuff industry to prepare charts showing the rate of exhaust for all types of colors on textile fibers. These charts are prepared using dyebath conditions that are considered to be average. Unfortunately average conditions do not generally exist in practice. The Philadelphia Section has developed a simple laboratory apparatus and method for determining exhaust rates versatile enough so that mill conditions can be duplicated. The apparatus is simple in construction and readily applicable to practically any mill laboratory. In the paper, representative results are illustrated including correlation between actual mill dyeings and laboratory duplication thereof. Practically all of the experimental work has been done on wool with acid colors. Some data are presented for acid colors on nylon. In addition to correlating laboratory data with mill results, some interesting observations have been made on the effect of cooling the dyebath and the effect of Glauber's salt.

COMPARISON OF REFEREE SOXHLET AND RAPID METHOD OF OIL AND GREASE DETERMINATION (*Northern New England Section*)—The standard Soxhlet method requires elaborate apparatus and is time-consuming. Various short-cut methods which are generally considered less accurate than the Soxhlet method have been proposed from time to time. This paper describes a quick simple method to determine oil in textile materials, using only apparatus normally present in any laboratory and, by comparison with the Soxhlet method and samples of known oil content, is at least as accurate as the Soxhlet. The time required is about 30 minutes for a single determination as compared with about three hours using the Soxhlet. The method is not in itself a new one, being a simplified modification of known methods, but the fact that its accuracy is at least as good as the Soxhlet method is considered new and novel. This inherent accuracy is demonstrated statistically on an adequate number of samples by several mill laboratories.

THE "STRIP-TESTER," AN INSTRUMENT DESIGNED TO MEASURE DIMENSIONAL CHANGE IN WOVEN FABRICS (*New York Section*)—This new instrument was developed in an effort to eliminate or minimize certain undesirable characteristics pertaining to both the equipment and the procedures employed in recognized testing methods for determining rayon fabric shrinkage. The procedures outlined, for example, in A.A.T.C.C. Standard Test 14-33, CCC-T-191a, CS 59-44 or the Tension Presser method all require the use of costly and expensive machinery; the methods are complex and time-consuming and must be performed by a laboratory technician. Furthermore, inter-laboratory tests show wide discrepancies, and even tests performed in the same laboratory by the same

Dr. George L. Royer *(standing at far right)* poses with others at the speaker's table prior to receiving the Olney Medal.

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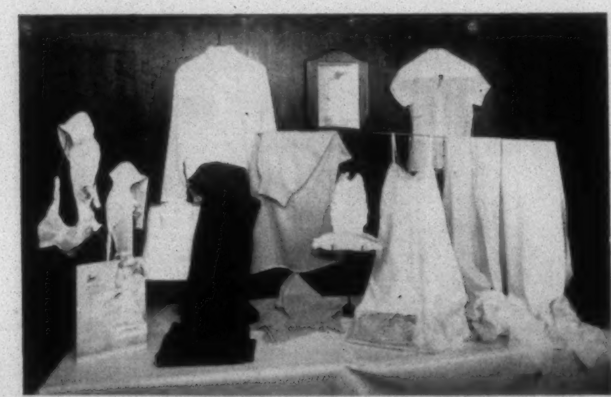
operator often produce results that fluctuate beyond a reasonable amount. With such established facts upon which to base conclusions no known test procedure can give accurate information on the consumer performance of a rayon fabric in laundering. The "Strip-Tester" overcomes, to a considerable degree, most of these deficiencies; it is a small, relatively inexpensive apparatus; each test on a strip of fabric can be completed in less than ten minutes; test results from different laboratories at different times are highly reproducible and can be performed by persons who are not trained technicians. The apparatus is of simple construction, consisting of a Pyrex cylinder in which the test strip is held upright between two clamps, the lower clamp being stationary, and the upper one connected with a balanced arm to which varying amounts of tension from zero upward may be applied. The arm itself is balanced on a ball-bearing and has affixed to it a pointer-indicator that operates over a scale that is calibrated in fractions of percentage (shrinkage or elongation). The lower opening of the cylinder can be sealed by a hinged metal closure to permit filling with water and opened to admit hot air from a blower which swivels on the main support of the entire apparatus. The test method involves only three simple operations: (1) drying the fabric in a relaxed condition in the cylinder; (2) wetting the strip with boiling water under the desired tension; and (3) drying the fabric and reading the percentage of dimensional change registered on the calibrated scale. It should be noted that from the time the machine is set until the final reading is recorded the human element involved in pressing, measuring and converting into percentage has been entirely eliminated. Also, the progressive changes that occur in the fabric can be followed by observing the movement of the indicator throughout the wetting and drying operations. The object of this paper will be to present a comparison of results of tests made on eight different fabrics by the "Strip-Tester" method, various currently used test procedures and both home and commercial laundering.

SPECTROPHOTOMETRIC STUDIES OF CONTINUOUS DYEING (*South Central Section*)—The object of this study is to present a simple, yet fairly precise procedure of measurement of dye mixtures and to show data obtained from actual mill runs. The elimination of all highly technical functions from the spectrophotometric part of this work was kept in mind so that a method adaptable for "in the plant" control is demonstrated. Several types of continuous dyeing are discussed.

New Finishing Process For Nylon Fabrics

A NEW finishing process, which is said to make nylon completely comfortable to wear, has just been originated by Hans C. Bick, Inc., manufacturing chemist and fabric finisher of Reading, Pa. The finish is said to give nylon warmth, softness and faster absorption and dispersion of water or perspiration, without impairing any of the fast-drying, long-wearing nylon characteristics.

The "nylonizing" finish is manufactured from Type Eight nylon, which is emulsified at the Bick plant and made water soluble. It is applied to the after-finish of nylon and becomes permanent in both the finish bath and set with the temperature of drying. The process is relatively easy to apply, and can be used by any commercial dyeing or finishing plant. It does not change the appearance of nylon other than making it slightly duller, according to Robert S. Horn, Jr., vice-president in charge of manufacture, but the feel and touch have been radically changed. When treated with the new finish, nylon becomes soft and pliable. Since it absorbs water readily, it eliminates the uncomfortable feeling of stickiness or clamminess on the body. It does not become hard or tight in cool weather.



The new nylonizing finish may be applied to a variety of nylon fabrics. In addition to hosiery, nylonizing may be used for nylon lingerie, shirts, girdles, piece goods, blouses, dresses and other nylon garments. The process makes nylon clothes more comfortable to wear since it absorbs and disperses perspiration or water much faster than the untreated fabric.

The difference between the processed and unprocessed nylon is apparent when a drop of water is placed on each. In three minutes the droplet is still standing on the unprocessed nylon. It has been completely absorbed by the processed stocking in 25 seconds. In the curing process, the nylon finish is fused or bonded to the fabric. Therefore, it will never wash out nor wear off, and is permanent for the life of the fabric.

Research and tests are being made on nylon fabrics for girdles, swim suits, shirts, blouses, and lingerie. The finish is made available to fabric manufacturers either as a finished processing job, or as raw material, from which they can do their own processing. Manufacturers using the process are identifying the nylonized fabric by transfer, label, or package insert.

What is Nylonizing?

The finish is bonded to the material during the curing process and will never wash off nor wear out. It is permanent for the life of the garment. Nylonizing does not materially change any of the characteristic long-wearing, fast-drying qualities of nylon. The process simply makes nylon less water-repellent. Nylonizing can be applied to woven materials as well as knitted.

Nylonizing enables the nylon garment to absorb moisture faster and disperse it instantly. In addition, nylonizing gives nylon a softness, pliability, and warmth not usually associated with the untreated fabric. Because it spreads moisture and speeds evaporation, it makes the garment much more comfortable to wear in all kinds of weather. People who have complained that nylon is hot and sticky or cold and clammy, depending on the temperature, will find nylonized garments as comfortable to wear as silk or cotton. This is a boon to everyone, but especially to those who perspire profusely. Moreover, nylonized garments are comfortable in all seasons, since they quickly absorb moisture in Summer and do not become hard or tight in cool weather. The process does not change the appearance of the fabric, other than to make it slightly duller, but the feel and touch have been radically changed.

Hans C. Bick, Inc., will manufacture and will furnish to all types of manufacturers, processors, converters, etc., the emulsified Type Eight nylon to be applied in their own plants. The process can also be applied in the Bick plant to hosiery and is now being applied to the largest percentage of the hosiery now being finished at the plant.

TRICKS of the Trade

Edited by PROF. KENNETH S. CAMPBELL
Chemistry and Dyeing Department, North Carolina State College School of Textiles

More on Stabilization of Rayon

In response to a number of inquiries following our discussion last month on the available stabilization processes for rayons, we are presenting below the details of the combination reactant and bonding method which is known as the "Avcoset" process. This method is said to be equal to or better than any other process now in use for shrinkage control of viscose rayon fabrics. Its field of advantage appears to be in the treatment of fabrics to be used for fitted shirts, washable dresses, and the like.

AVCOSET FOR RAYON STABILIZATION

Formula

Ceglin V1ES	2	lbs.
Caustic 50%	5.3	
Formaldehyde 37%	20	
*"Avcosol" 104	1	
Sulphuric Acid 96%	5.4	
Total volume	24	gallons

*Avcosol 104 may be varied to provide a softer or firmer hand.

Preparation of Formula

1. Wet-out Ceglin at least two hours in four gallons water.
2. Add caustic slowly and stir until dissolved using mechanical mixing.
3. Dilute slowly while stirring to 12 gallons, using water and ice to bring temperature to about 45° F. About 50 lbs. of ice needed.
4. Stir in Formaldehyde.
5. Add Avcosol 104 previously dissolved in 1.5 gallons of water at 150° F. and cooled with 1.5 gallons cold water.
6. Prepare acid solution, using 5.4 pounds sulphuric acid, seven pounds ice and 15 pounds water. Back titrate with acid solution to pH of 1.3.
7. Adjust to volume of 24 gallons.
8. Strain solution into pad.

Procedure

1. Pad fabric through solution under tension to give 5-8 per cent stretch.
2. Dry at 240° F. on clip frame or pin tenter (without overfeed) at one-half of an inch over final desired width.
3. Cure on pin tenter, loop dryer, or other conventional equipment for 2½ minutes at 330° F.
4. Rinse with soda ash and detergent with fabric in a relaxed state.
5. Dry relaxed on pin tenter with overfeed or loop dryer at 230-240° F.
6. Steam frame and/or decate if desired.

New Textile Chemistry Volume

Introduction to Textile Chemistry. (Bruce E. Hartsuch. John Wiley & Sons, Inc., 1950. 413 pages. Price $4.75.) This new book is a welcome addition to the literature of textile chemistry. It has been written especially for students in colleges where courses in clothing and textiles are offered and for those who have had at least elementary training in chemistry. It is particularly concerned with the chemistry of raw materials used in the textile field. It is intended to extend the background for the student of textiles rather than to serve as a course for the student specializing in textile chemistry.

The following chapter titles will give an idea of the content of the book: Calculations Used in Chemistry, Organic Chemistry, Soap, Water, Classification and General Physical Properties of Textile Fibers, Chemistry of Cellulose, Cotton, Rayon, Wool, Silk, Nylon, Man-made Polymerized Filaments, and Man-made Protein Fibers. The first chapter serves as convenient review, and the second may serve both as review and for preliminary treatment of organic chemistry sufficient to give those who have not studied it previously an understanding of many of the organic reactions of interest to the textile chemist. Soap (and other detergents) and water are probably the two most important raw materials used in processing textiles; their chemistry is covered in the space of two chapters. Forty pages are devoted to a discussion of the chemistry of cellulose. The remainder of the book discusses the most used natural and synthetic fibers, their production, physical and chemical properties, and the chemical processes to which they are exposed in industrial application. A number of chemical finishing techniques for materials made of these fibers are also described.

It should be noted that the subject of dyes and dyeing is omitted completely from this book. This was an intentional omission. It is felt, however, by this reviewer that at least a limited discussion of types of dyes applicable to the various fibers discussed would have added to the value of the book.

This book should serve several purposes; namely, as a fine text for courses in textile chemistry in non-textile colleges, as a text in textile chemistry for textile students not majoring in textile chemistry, as a text for a junior course for textile chemistry students, and as a useful reference book for the technician working in fields related to textile chemistry. It is written in a clear, logical style and is sufficiently well supplied with references for its purpose. It is a unique and valuable addition to the literature which has been published in this field.

Saponification of Acetate Rayon

Continuing our policy of discussing current technical articles of unusual interest we have chosen this month the paper "The Effect of Physical Pretreatment on the Ease of Saponification of Cellulose Acetate Material" by C. P. Tattersfield which was published in the January, 1950, issue of the *Journal of the Society of Dyers and Colourists.* This study describes the effect of strain on cellulose acetate yarn or film with respect to subsequent saponification of the material; the strain may take the form of abrasion, creasing or folding, stretching, or embossing. In its fundamental aspect this work has considerable bearing upon the fine structure of the acetate fiber, and the mechanism of deacetylation; in its practical aspect it suggests possible dyeing and finishing methods utilizing the differential saponification which results from local strain.

In brief, it was found that if a piece of cellulose acetate fabric is merely marked with a glass rod or rubbed with sandpaper and then subjected to treatment with aqueous sodium hydroxide under the proper conditions saponification will take place only where the mechanical action has been applied. This is shown very clearly by dyeing with direct dyes—the saponified portion dyes heavily leaving the ground portion virtually uncolored; or, a mixture of direct and acetate dyes may be used and a two color effect obtained. Acetyl content determinations run on strained and saponified yarns show the expected drop conforming to the gain in affinity for direct dyestuffs. The effect of strain in inducing rapid saponification is so pronounced that impressions of letters made on fabric by un-inked keys in a typewriter may be read very clearly upon saponification and dyeing. The conditions of saponification are not critical. They may vary from 0.2 cc. of 70° Tw. sodium hydroxide per 100 cc. for 30 minutes at 60° C. to 2.0 cc. per 100 cc. for ten minutes at 20° C. At such concentrations of caustic the effect on the unstrained ground is almost negligible. As little as ten per cent stretch in acetate yarn will predispose the yarn to saponification sufficiently so that the latter can be measured by decrease in acetyl content or by increase in affinity for direct dyes. This leads to one potential use of the differential saponification technique: it is a delicate test to determine whether a fabric or a yarn defect is due to a physical strain or to some other cause. A cut may be distinguished from a rupture for example. Another potential use of information obtained in this study is in minimizing possibility of unevenness in dyeing when yarn which may have been somewhat roughly handled in previous processing is to be scoured and cross-dyed with direct colors or with vat colors. A treatment with 30 per cent salt solution at 90° C. for ten minutes practically eliminated the tendency of strained portions to preferentially saponify, and this in spite of the fact that the obvious physical effect of the abrasion or stretching remains. Other possibilities lie in the use of embossing rollers, plain or in conjunction with fabric of pronounced design, as in moireing, to prepare the fabric for deliberate preferential saponification in order to obtain colored design effects in subsequent dyeing.

On the fundamental side, the saponification of strained areas which takes place is believed to be due to the formation—as a result of strain—of fine cracks in the surface structure, possibly only a few angstroms in width. The caustic soda solution enters these cracks, which may increase in size as hydroxyl groups replace acetyl groups; on dyeing the direct dye molecules are adsorbed by these accessible intercrystalline areas and result in the dyeing of these strained portions. Presumably hot water, or, particularly, hot salt solutions will anneal the surface of the fibers to an extent sufficient that differential saponification no longer takes place. While this greatly oversimplifies the action taking place, it seems at least a plausible theory.

New pH Standards Selected By Bureau

Four new pH standards, intended to provide fixed points at the upper and lower ends of a standard pH scale, have been selected by chemists of the National Bureau of Standards. The new solutions extend the accuracy of standard scales made to conform with the three middle-range standards which the bureau now distributes to the chemical industry.

Measurements of the degree of acidity and alkalinity play an important part in the research laboratory and in the regulation of such modern industrial processes as textiles and dyes. These measurements are expressed in terms of hydrogen-ion concentration, or pH, on a scale ranging from a pH of almost zero (very high acidity) to a value near 14 (very high alkalinity). Although exact measurements of acidity can be made with instruments now in use, there has been a lack of uniformity among the results obtained because of the variety of definitions of the pH unit popular among chemists and the consequent difference in methods of calibrating the instruments.

The National Bureau of Standards has long recognized the need of a universally accepted scale of acidity, analogous to the International Temperature Scale. To encourage the adoption of such a scale, the bureau has, for several years, distributed three standard samples of known pH in the United States and abroad. These samples fix the scale at pH four, seven, and nine, and the pH of intermediate points is obtained by interpolation. Unfortunately, this scale is not uniform at its ends, and additional standards are needed to reduce the error of measurement at low and high pH.

In a recent study, R. G. Bates, Gladys G. Pinching and E. R. Smtih of the bureau's physical chemistry laboratory determined the extent of inaccuracy at the ends of the practical pH scale. They concluded that an instrument calibrated with the present solutions of intermediate acidity will usually yield results that are low by 0.02 to 0.05 unit or more above pH 11. Below pH 2.5, errors as great as 0.03 unit, either positive or negative, were found. In general, solutions of strong acids and bases display larger errors than buffered solutions.

In the course of the work 41 solutions of possible value were examined. Out of these, the following four standards were selected: (1) A mixture of sodium bicarbonate and sodium carbonate, both at 0.025 molar concentration, with a pH of about ten at room temperature. (2) A 0.01 molar solution of trisodium phosphate, pH about 11.7. (3) A solution of potassium hydrogen tartrate saturated at room temperature, pH about 3.6. (4) A 0.01 molar solution of potassium tetroxalate, pH about 2.1.

Although the new standards lengthen the accurate portion of the scale in both directions, the measured pH of highly acid and highly alkaline solutions must still be assigned an uncertainty of at least plus or minus 0.03 unit. The bureau plans to add the potassium hydrogen tartrate and the potassium tetroxalate to the Standard Samples it issues when an adequate supply of the purified materials has been obtained, tested and bottled for distribution. An announcement of their availability will be made in the *Technical News Bulletin.*

Study Shrinkage Differences Of Wools

Contrary to popular belief, wools of different geographical origin act quite similarly with regard to laundering shrinkage, according to an Army Quartermaster research report now available from the Office of Technical Services of the U. S. Department of Commerce. The report, one of a series being issued as part of the Quartermaster's program to determine the causes of fabric shrinkage, describes an investigation of a number of wools chosen from the world's chief producing areas. The small shrinkage differences determined were found to relate to staple length, rather than to point of origin of the wool, the longer fibers promoting felting in laundering.

The grade of wool, however, was found to exert little or no influence on laundering shrinkage, according to the report. This finding is also at variance with popular opinion, but agrees with other scientific evidence cited. The report's findings relate only to the type of shrinkage that occurs during the laundering of wool garments, and do not necessarily hold for the type of felting that occurs in a fulling mill.

PB 101 687, *Some Felting Properties of Wools from Different Geographical Origins,* 13 pages including graphs and tables, sells for 50 cents per copy. Orders should be addressed to the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., and should be accompanied by check or money order payable to the Treasurer of the United States.

Automatic Pressure Control For Kettles

Those who have had experience with dyeing fine stock or extra heavy loads of stock in totally enclosed, pressure type stock dye kettles know that pressures tend to build up much more than with coarse stock or normal loads. This extra high pressure is not always desirable and Riggs & Lombard, Inc., of Lowell, Mass., manufacturer of textile finishing machinery, has devised a method of automatically reducing this pressure in its Fleet Line stock dye kettles. The operator of the dye kettle sets the control for the pressure which he desires. Assume that the pressure he wants is three pounds. As soon as the pressure in the kettle exceeds three this pressure automatically opens a by-pass so that part of the dye liquor in the kettle goes directly to the expansion chamber instead of through the stock and then to the expansion chamber. Thus the pressure is automatically reduced to the pre-determined norm.

Piedmont A.A.T.C.C. Unit To Meet Oct. 28

The Piedmont Section of the American Association of Textile Chemists & Colorists will hold its annual meeting Oct. 28 at the Hotel Charlotte in Charlotte, N. C. The technical session will get underway at 3 p. m. at which time Lawson W. Turner, Jr., of N & W Industries, Lynchburg, Va., will speak on "Piece Goods from the Cutter's Standpoint." This will be followed by a paper on "Dyeing of Algosols on Hosiery" by Karl A. Bridges of General Dyestuff Corp., Charlotte.

The annual banquet will be served at 7 p. m. and the speaker of the evening will be Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute. Mr. Jackson will be introduced by T. S. Whitsel, chairman of the technical advisory committee of the Southern Garments Manufacturing Association. Charles C. Cayce of General Dyestuff Corp., Charlotte, is in charge of arrangements for the meeting.

Officers of the Piedmont Section are Robert H. Smith of High Point (N. C.) Chemical Mfg. Co., chairman; Edwin A. Briggs of Southern Franklin Process Co., Greenville, S. C., vice-chairman; W. Chester Cobb of Arnold, Hoffman & Co., Inc., Charlotte, secretary; and Hobart Souther of Cone Mills Corp., Greensboro, N. C., treasurer.

Maintenance, Engineering & Handling

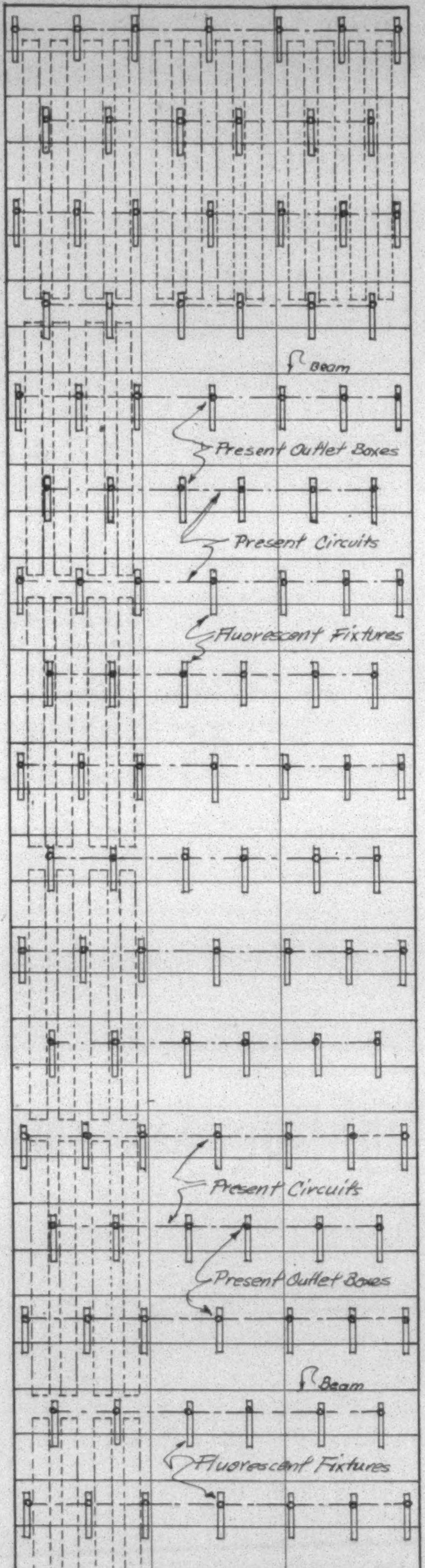
Modernizing Old Mill Lighting Systems

By JAMES T. MEADOR

ANOTHER session on a much discussed subject, and that is mill lighting; although not mill lighting in the usual line of thought, but with a view of bringing some old and obsolete lighting systems up to date, and also up to higher intensities at a relatively low cost compared with out-and-out new lighting systems. This is written in reply to numerous requests for a report on this particular phase of the lighting subject.

There are many mills, built during the period from 1926 to 1940, which had what was then considered to be the very latest and most modern lighting systems based upon the best and most dependable light source of that time, which was the incandescent lamp bulb. These systems were installed with conduit type wiring, with RLM type dome reflectors for lamps of various wattages such as 100 watts, 150 watts, 200 watts, or perhaps in a few instances, 300 watts, on 110-volt systems. Now, these RLM units were arranged on different spacing distances, depending upon the wattages called for to give the required amount of light for that area, with some spacings on a basis of eight feet by 12 feet (96 square feet per fixture) or 16 feet by 12 feet (192 square feet per fixture). The eight feet by 12 feet spacing usually required a 100-watt lamp per fixture, while the 16 feet by 12 feet spacing usually called for a 200 watt lamp per fixture, which balanced the wattage of light per square foot of floor area (approximately one watt per square foot), but badly threw out of balance the amount of usable light on the work when the fixtures were arranged on the greater spacing. The mounting heights above the floor were usually from ten feet to 12 feet with the RLM fixtures supported on conduit stems, or sometimes on heavy duty drop cord.

In the cases of such installations, the wire and conduit are usually of the proper or sufficient size to carry the intended current for the system without overloading the wire

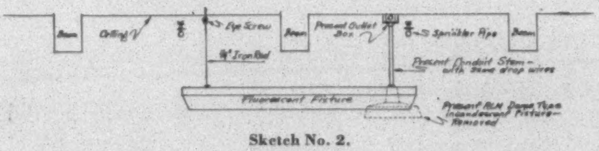


Sketch No. 1.

and damaging the insulation. Therefore, those of you who have such installations can do a little checking on this matter of wire and conduit size and lighting current load on the system, as well as check on the capacity of the lighting transformers supplying this group of lights, and then go ahead with plans to modernize the lighting with the better and more efficient fluorescent lighting.

These plans for modernizing lighting in many mills have been based upon the full use of the existing system in its entirety. That is, the main 220-volt or 550-volt lighting feeder to the transformers, and the low voltage (110-220-volt) feeders to the distribution panels and the branch circuits all as they were, even using the same outlets. And, using this idea as a base for starting, some mills have used the newest thing in fluorescent lighting, which was the double-75 watt, 425 milliamp fixture, eight feet long and instant start, without starters. Being of such a length as eight feet, they are long enough to close up the gap or distance between outlets of long spacing, and at the same time give approximately 2½ times the light of the old incandescent lamps of the same wattage. These fluorescent fixtures mentioned above require 200 watts total electric power for operation, which is no more than most of those old type lamps. This 200 watts power requirement is made up of the combined wattage of the two lamps plus the wattage required in the operation of the fixture by the transformer.

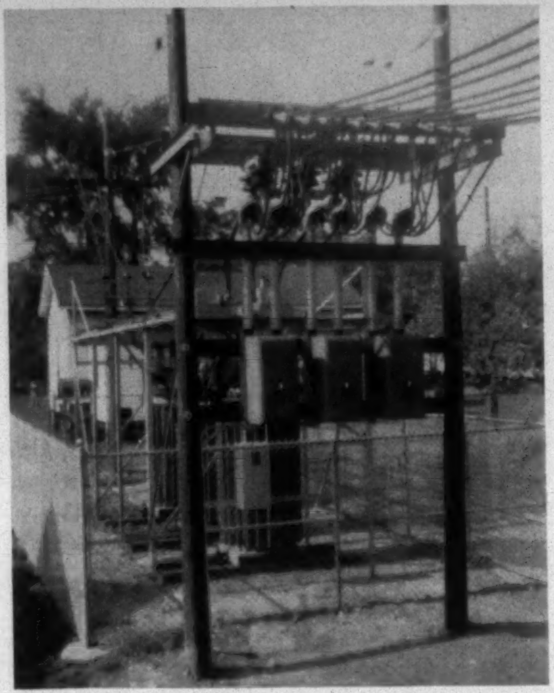
There is another size and type of fluorescent fixture which has been very successfully applied in these cases, and which has been a very good performer in matters of light output, low maintenance and low lamp and starter replacement costs, and that is the five-foot long, double-tube (85 watts per tube) fixture, also taking a total wattage of 200 watts, same as the eight-foot long fixture just described above. This five-foot fixture employs the usual starter required in the conventional fixtures in use today, but, its starters are larger and heavier, and, consequently are more satisfactory in their service. The light tubes are correspondingly larger with more rugged contact pins, being 2⅛ inches in diameter and 60 inches long. In fact, every feature about this five-foot fixture is stronger, heavier and more rugged, and, therefore more satisfactory with less troublesome operation as a light source. A mill using this type of fixture would only have one-half as many tubes to handle as would be the case if fixtures using 40-watt tubes were used.


Beam
Ceiling
Eye Screw
Beam
Present Outlet Box
Sprinkler Pipe
Beam
¼" Iron Rod
Present Conduit Stem—with Same drop wires
Fluorescent Fixture
Present RLM Dome Type Incandescent Fixture—Removed

Sketch No. 2.

For an example, let's take a spinning room of a certain mill, 37 bays (eight feet) long and three bays (25 feet) wide, a total of 296 feet length and 75 feet width, with the lighting outlets arranged and spaced about as shown on the accompanying sketch. In this case the 16 feet spacing of the present outlets (lengthwise of the mill), combined with the fact that a cleaning rail ran over the frames lengthwise dictated that the fixtures be run lengthwise also, parallel to the frames, which gave a most satisfactory distribution of light in the whole room.

This, as some of you will realize, is at variance with what



Face view of air circuit breakers in their operating position of approximately nine feet above the ground. Installation at Manetta Mills, Monroe, N. C.

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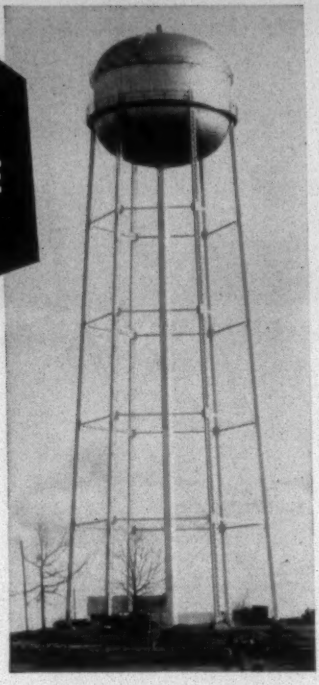

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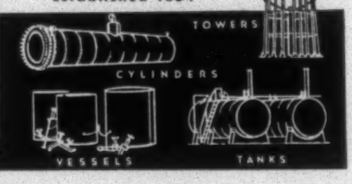

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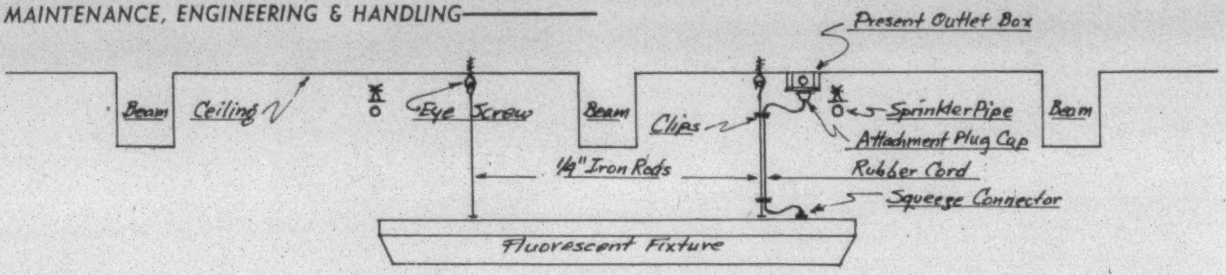

Sketch No. 3.

we have been favoring in mill lighting heretofore. And, that is the fact that the tubes in this case (above) are not parallel to the yarn in process, but are across the yarn at 90° (squarely), and still is giving out a most usable and satisfactory light. We still advocate, however, and, in fact, insist on this idea in weave rooms where it is so important that the light tubes be parallel to the warp on the loom for the advantages of contrasts accentuated by the shadows on the underside of the warp yarn.

You will find that there are many possibilities in your plants for modernization of lighting, perhaps in a most satisfactory and economical manner. It's certainly worthwhile!

To emphasize just how economical this sort of conversion will be, consider Sketch No. 2 which shows a fixture mounted so as to utilize the present conduit stem with swivel hanger and its drop wire now supplying the present RLM fixture for support on one end, without changing the location of the outlet box or the branch conduit run across the ceiling. The other end of the fixture is supported by a one-quarter of an inch round iron rod hooked through a heavy duty size of eye screw securely run up into the ceiling.

Sketch No. 3 shows how a fixture may be mounted by means of one-quarter of an inch iron rods at each end, with heavy duty eye screws, and utilizing the present or existing drop cord from the outlet box, also, without changing the branch conduit line across the ceiling. You will note that the cord can be secured to the hanger rod by means of small metal clips, which would prevent the cord from becoming loose and being damaged. To facilitate the job of taking down the fixtures mounted by this means, you might install receptacle covers on the present ceiling outlet boxes and install attachment plug caps on the drop cord wire, and would only require plugging in to complete the circuit for lamp operation. If you were to use this method of wiring, you could avoid having the plugs drop out of the receptacles by having the metal securing clips installed so that they would hold the cord high up on the rod beside the outlet box, as shown.

Sketch No. 1 is a layout of the mill referred to above, showing the coverage of light distribution given by the fixtures in relation to the arrangement of spinning frames.

Another fact that should be pointed out is that, while this article covers a spinning room area, this possibility of conversion applies equally as well to all other parts of your mill.

Bahnson Offers Course For Maintenance Men

The Bahnson Co. of Winston-Salem, N. C., has announced that the annual Operating and Maintenance Engineers Classes conducted by the company will be held at the Robert E. Lee Hotel in Winston-Salem during the weeks of Nov. 13-17 and Nov. 27-Dec. 1. The purpose of these classes is to make operating personnel more familiar with the air conditioning equipment under their care. Bahnson officials state that reports from previous years indicate complete satisfaction and extreme benefit from the effort put forth.

The schedule for the classes reveals that the first week is primarily for installations using evaporative cooling, and the second week for installations using refrigeration. There will be no charges in conjunction with the classes beyond the fact that firms sending maintenance personnel will defray the expenses of these individuals.

Plan For Materials Handling Exposition

The most extensive discussion of materials handling problems, a phase of industry which now involves upwards of 25 per cent of production payrolls, has been announced for the Materials Handling Conference to be held at the International Amphitheatre, Chicago. The conference will be held during three of the five days of the fourth National Materials Handling Exposition, April 30 to May 4, 1951, inclusive. The conference will be sponsored by the American Material Handling Society and the exposition by the Material Handling Institute. Clapp & Poliak, Inc., New York, will conduct the exposition.

Unique features of the conference will include sponsorship of portions of the program by the society's regional chapters, and separate sessions devoted to industries with special problems.

The exposition, which in three years grew to rank among the five largest industrial shows in the country, will add a huge outdoor arena to its exhibit space in order to permit demonstrations of yard handling equipment, which were not possible when the exhibits were confined indoors. Exhibits will cover six acres indoors and four outdoors. Several hundred companies will exhibit thousands of models to provide the most extensive display of cost-reducing handling machinery ever assembled. Previously held in Cleveland and Philadelphia, the show and conference were moved to Chicago to provide a wider audience from mid-West and Pacific Coast industrial centers.

The conference will devote its three morning sessions to consideration of general problems. These will include building of materials handling systems; surveying materials handling problems; relating handling to other departments; determining handling costs, and presenting a materials handling program to top management. Afternoon sessions will consider special problems of separate industries. Two sessions will run concurrently each day.

Industries which will get special attention at these afternoon sessions include paints, varnishes, solvents, oil, chemicals, textiles, and many others. Advance registration cards and hotel information may be obtained from Clapp & Poliak, Inc., 341 Madison Avenue, New York 17, N. Y.

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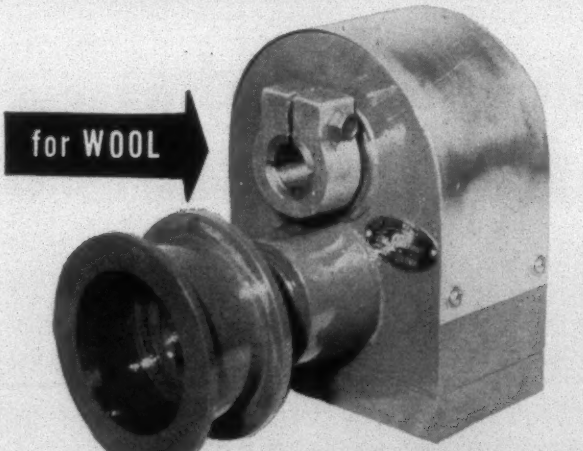

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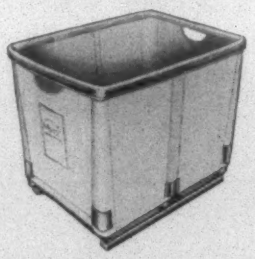

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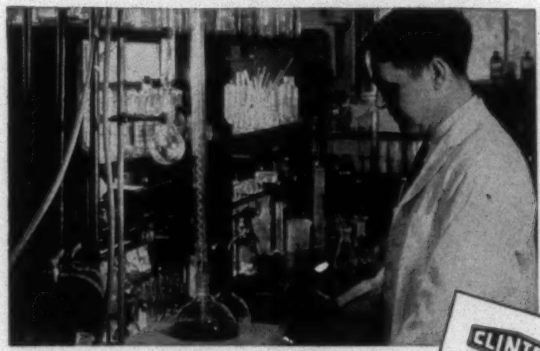

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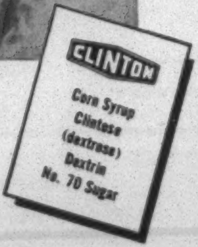

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PERSONAL NEWS

William A. Sipprell, Jr., president of H & B American Machine Co. announces the moving of his personal residence to Charlotte, N. C., the latter part of this month. The purpose of such a move, Mr. Sipprell explained, is to facilitate the distribution of his time between direction and development of the company's increasing Southern activities and its plant operations in Pawtucket, R. I. In connection with the latter, Mr. Sipprell will continue to regularly spend a portion of his time at the company's executive offices. His Southern headquarters will be at the company's new Charlotte office located at 524 West 4th Street. . . . Concurrently Mr. Sipprell announces the promotion of William M. Fraser, who for the past year has been vice-president in charge of manufacturing and engineering, to the position of vice-president and general manager. . . . Elmer J. McVey continues as vice-president in charge of sales and Russell E. Birdsall as treasurer. . . . William E. Conlon, recently manager of the company's Charlotte office, has been appointed head office sales and service manager and will henceforth administer such activities in the company's head office. In view of Mr. Conlon's transfer from Charlotte, Ray L. McCauley has been appointed assistant manager of that branch. . . . Charles A. Brown has been appointed works manager and F. George DeSantis has been appointed chief engineer of the Pawtucket plant.

Sipprell

McVey

Conlon

Fraser

John L. Hallett, who is associated with Springs Cotton Mills at Fort Mill, S. C., was married Sept. 22 to Miss Mary King Gibbon at Charlotte, N. C. The bridegroom is the only son of H. K. Hallett, vice-president and divisional manager for Kendall Mills at Charlotte.

William C. Howard, a graduate of Case Institute of Technology with a degree in chemical engineering, has just completed an intensive sales training program at Rochester, N. Y., conducted by Taylor Instrument Companies, and has been assigned to the Atlanta, Ga. office. He will sell the company's industrial line in parts of Tennessee, North Carolina, Virginia, Alabama and Georgia.

S. A. Mauney, president of Kings Mountain (N. C.) Mfg. Co., was renamed secretary of the Brotherhood of the United Lutheran Church in America at the recent biennial convention of the group in Cedar Rapids, Iowa.

Harvey B. Green, assistant to the president of National Automotive Fibres, Inc., in addition to his present duties also has been elected assistant secretary and assistant treasurer of the company.

H. K. Hallett of Charlotte, N. C., was elected divisional vice-president of The Kendall Co. at a meeting of the board of directors held Sept. 28. Mr. Hallett, a director of the company, is divisional manager of the Kendall Mills division which operates the company's cotton mills in North and South Carolina and at Turners Falls, Mass. He is also president of Pelzer (S.C.) Mills, a subsidiary.

Congressman Thurmond Chatham of North Carolina, chairman of the board of Chatham Mfg. Co., Elkin, N. C., was on the front page of most of the nation's news-

KEMP P. LEWIS *(seated)*, chairman of the board of Erwin Mills, Inc., is being congratulated upon the completion of 50 years with the company. He was honored Oct. 3 with a testimonial dinner at the Hope Valley Country Club in recognition of his half-century of service to Erwin and the textile industry.

Mr. Lewis joined the company Oct. 3, 1900, and succeeded the late W. A. Erwin as president in 1932, and subsequently becoming chairman in 1948. He has been president of the North Carolina Cotton Manufacturers Association and the American Cotton Manufacturers Association, and is currently a director of the American Cotton Manufacturers Institute.

Shown with Mr. Lewis are *(left to right)*: Carl R. Harris, vice-president of Erwin, who presented a handsomely inscribed silver punch bowl; John Sprunt Hill of Durham, long-time director and a former vice-president of the firm; William H. Ruffin, president and treasurer, who presided at the testimonial; and E. H. Bost, manager of the Erwin, N. C., plants and himself a member of the organization for 30 years.

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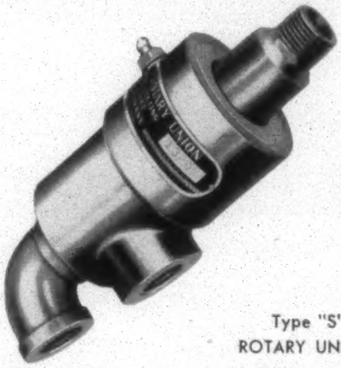

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papers recently in Associated Press dispatches telling how he was taken into the Russian sector of Germany by a Soviet officer with whom he did liaison work during the war.

Gabe Hill of Spartanburg, S. C., formerly secretary of several Southern plants for Reeves Bros., Inc., has been made comptroller of Southern plants for the firm . . . Other personnel changes among Reeves' Southern executives include appointment of J. H. Wyatt, former superintendent of Chesnee (S. C.) Mills, as assistant treasurer of Southern plants. . . . Transfer of W. C. Arail, former superintendent of Grace Mills at Rutherfordton, N. C., to Chesnee Mills as superintendent; and the transfer of S. E. Murdoch, assistant superintendent of Mills Mill No. 1 at Greenville, S. C., to Grace Mills as superintendent. All changes were effective Oct. 1.

Herb Erwin, assistant secretary of M. T. Stevens Southern, a division of J. P. Stevens & Co., Inc., plans to go to Harvard University for a special three-month course in advance management. Mr. Erwin is also an executive on the staff of the Stevens' Milledgeville and Dublin, Ga., wool mills.

Cy Girard, secretary and treasurer of Central Yarn & Dyeing Co., Inc., Gastonia, N. C., joined golfdom's select hole-in-one club Sept. 22 when he fired an ace on the 145-yard fourth hole at the Gaston Country Club course. It was his first ace and he used a No. 7 iron.

Dr. W. G. Sink, for the past several years head chemist at Mooresville (N. C.) Mills, recently resigned that post to become affiliated with Fisher Scientific Co. of Pittsburgh, Pa. . . . Leon F. Frye has resigned as superintendent of carding and spinning at Mooresville Mills. He has not yet announced his future plans.

Donald A. Buchan (*at left below*) has been appointed Southern representative for Davis & Furber Machine Co. with headquarters at Charlotte, N. C. Mr. Buchan succeeds Grover C. Truslow, who retired Sept. 30 upon orders from his physician. Mr. Truslow had managed the Charlotte office since it was established more than a year ago. Mr. Buchan has 27 years of D. & F. training and has worked in nearly every phase of the manufacture and marketing of the firm's products. He assumes his new post after having represented the firm in the New England area since 1944. . . . Henry A. Newby (*right*) has joined the staff of Davis & Furber and will represent the firm throughout the South. A practical operating mill man with 25 years experience, Mr. Newby has worked for several mills in the South, including Fieldcrest Mills at Spray, N. C., where he was general foreman of carding. He will call on mills carding and spinning on the woolen system to insure that they get the best production and quality from their equipment. . . . William M. Truslow, son of Grover C. Truslow, will continue to cover the South as a salesman. He has been with the firm since the Southern branch opened.

John M. Bean, Jr., formerly personnel director for Republic Cotton Mills, Great Falls, S. C., has been appointed personnel director at Victor-Monaghan Co., Greenville, S. C. Both are divisions of J. P. Stevens & Co., Inc. At Victor-Monaghan Mr. Bean succeeds C. S. Maree, resigned. In

BRAZILIAN PRESIDENT ENTERTAINS—While in Brazil during August with a group of American educators, Dean Malcolm E. Campbell of the North Carolina State College School of Textiles attended a luncheon given by Presidente Dutra. Pictured *left to right* are Commandante Raul Reis, the president's naval attache; Chancellor H. Branscomb of Vanderbilt University; Presidente Dutra; and Dean Campbell. On invitation of the Brazilian Government Dean Campbell delivered several lectures on textile methods as practiced in the United States.

addition to his duties at Victor, Mr. Bean also will assist John E. Toole, Jr., director of personnel for the Dunean group of the Stevens company. A native of Springfield, S. C., Mr. Bean attended the University of South Carolina and was with the U. S. Department of Labor before entering the textile field.

W. Samuel Carpenter, III, who began working for the Du Pont Co. as a Summer-replacement chemist's helper in 1934, has been appointed assistant manager of the rayon department's planning division. Mr. Carpenter began his regular employment with the company in 1938, on his graduation from Princeton University. He had been acting manager of the planning section of the rayon division since Jan. 16, 1950.

Frank Krak has joined the sales staff of Hart Products Corp., 1440 Broadway, New York City, manufacturer of textile chemicals, and will represent the firm in the Metropolitan area. Mr. Krak will make available to Hart customers his wide technical knowledge of textile wet processing. Prior to his appointment by Hart Products, Mr. Krak was with Forstmann Woolen Co. for seven years where his duties included supervision and investigation of raw wool grease recovery, investigating continuous piece goods scouring and various finishing procedures.

J. Victor Nelson, former general manager of Dunson Mills at LaGrange, Ga., and for six years plant manager of the Alexander City, Ala., plant of Avondale Mills, has been appointed Southern district manager of Diehl Mfg. Co., electrical division of Singer Mfg. Co., manufacturer of electric motors, generators and fans. Mr. Nelson will make his headquarters in Atlanta, Ga. His wide knowledge of textile machinery equips him admirably for the application engineering of textile mill motors to textile machinery.

William H. Spencer, who late last month was promoted to divisional superintendent at Dan River Mills, Danville, Va., has resigned that post to join Burlington Mills Corp. in the production department. He will work out of Bur-Mil's main office at Greensboro, N. C.

Harold W. Leitch, general superintendent in charge of research at the Woolen Division of Pacific Mills, Lawrence, Mass., recently was re-elected chairman of the board of trustees of Lowell (Mass.) Textile Institute.

Paul Luscher, former assistant mill manager at the Hazleton, Pa., plant of Duplan Corp., has been named head of quality control operations for all ten of the company's textile plants. Mr. Luscher joined Duplan in 1930 as a technician. He will make his headquarters in the new central production offices at the Hazleton mill. . . . George H.

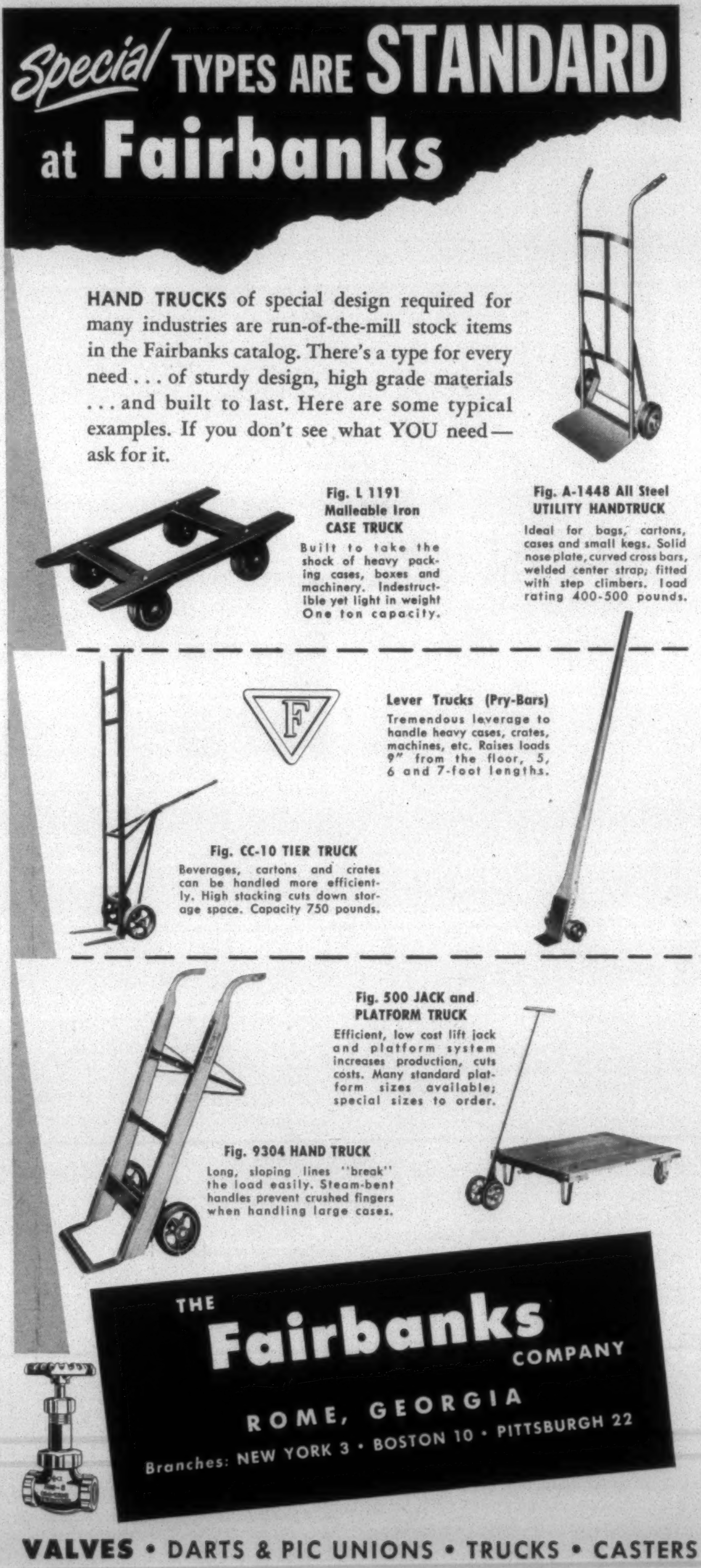

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Fig. L 1191 Malleable Iron CASE TRUCK
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Fig. A-1448 All Steel UTILITY HANDTRUCK
Ideal for bags, cartons, cases and small kegs. Solid nose plate, curved cross bars, welded center strap; fitted with step climbers. load rating 400-500 pounds.

Lever Trucks (Pry-Bars)
Tremendous leverage to handle heavy cases, crates, machines, etc. Raises loads 9" from the floor, 5, 6 and 7-foot lengths.

Fig. CC-10 TIER TRUCK
Beverages, cartons and crates can be handled more efficiently. High stacking cuts down storage space. Capacity 750 pounds.

Fig. 500 JACK and PLATFORM TRUCK
Efficient, low cost lift jack and platform system increases production, cuts costs. Many standard platform sizes available; special sizes to order.

Fig. 9304 HAND TRUCK
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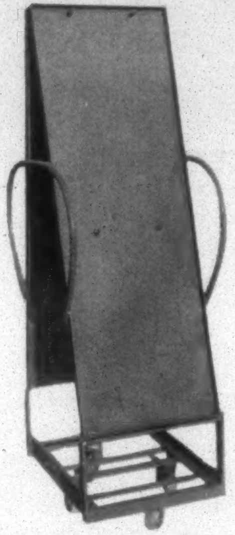

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No. 900 Metal Conditioning Truck
No. 1000 Fibre Truck
No. 1100 Steel Lap Truck
No. 1200 Utility Fibre Truck
No. 1300 Utility Metal Truck
No. 1400 Comber Lap Truck
No. 1600 Bale Opening Truck
No. 1700 Cone Truck
No. 1800 Beam Truck
No. 1900 Sliver Can Truck
No. 2000 Swing Bed Doff Truck
No. 2100 Battery Filling Truck
No. 2200 Rack Truck
No. 2300 Fibre Truck
No. 2400 Stainless Steel Dye House Truck

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Mr. Paul Eurey........Lincolnton, N. C.
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LINCOLNTON, NORTH CAROLINA

Hollis has been appointed chief engineer for Duplan, succeeding John K. Cochran, recently named general manager. . . . James F. Timony, former assistant personnel supervisor at Hazleton, has been named personnel supervisor of Duplan's new plant now under construction at Burnsville, N. C.

Richard Swallow is now superintendent of the Bigelow-Sanford Carpet Co. plant at Bristol, Va.

Carl R. Froeba has been named a sales representative in Allis-Chalmers Atlanta, Ga., district office. Mr. Froeba joined Allis-Chalmers in 1948 after graduating from Louisiana State University as a mechanical engineer. He recently completed Allis-Chalmers graduate training course. He is a member of the A.S.M.E.

F. M. Holmes, formerly director of the wage bureau for Fieldcrest Mills, Inc., at Spray, N. C., has been transferred to Fieldale, Va., as head of methods and standards for the firm's hosiery and towel mills there.

Kenneth A. Sawin has been appointed general sales manager for Wheeler Reflector Co. of Boston, Mass. He previously served as manager of engineering for the firm, being in charge of all design, development and engineering of its industrial lighting products. Mr. Sawin has been actively indentified with the work of technical societies in his field. He succeeds Lynn W. Ferguson, who for personal reasons has established residence at Richmond, Va., where he will continue to be associated with Wheeler as a district representative.

John E. Toole, Jr., of Greenville, S. C., personnel director for the Dunean group of J. P. Stevens & Co., has been elected chairman of the personnel division of the South Carolina Cotton Manufacturers Association. Mr. Toole succeeds J. W. Jelks of Winnsboro (S. C.) Mills. Mr. Toole is succeeded as vice-chairman of the group's personnel division by A. Z. F. Wood of Springs Cotton Mills, Lancaster, S. C. Named to the executive committee of the division were J. T. Glenn of Monarch Mills, Union, S. C., and L. E. Drummond of Seminole Mills, Clearwater, S. C.

Robert H. Lankford, Jr., for several years production manager at Chatham Mfg. Co., Elkin, N. C., has been promoted to the position of assistant to the general superintendent. . . . Walter C. Metz, formerly assistant production manager, has been appointed production manager to succeed Mr. Lankford.

W. I. Spencer has been transferred from the administrative staff of the Filament Division of Burlington Mills Corp., Greensboro, N. C., to Spun Rayon Spinning and Spun Rayon Weaving divisions as supervisor and co-ordinator. J. E. Garvin, a company vice-president, has assumed management of the Filament Division. . . . Frank A. Stubbings is new plant manager of the Bur-Mil finishing facility at Dublin, Va. A 1927 graduate of Massachusetts Institute of Technology, Mr. Stubbings joins Bur-Mil from the U. S. Finishing Co. Stuart Thompson has been designated as plant superintendent at Dublin.

R. C. Rau has been appointed general sales manager of the new Southern Division of Clinton Foods' Corn Processing Division. The appointment of Mr. Rau is in line with the Clinton policy of creating divisions in the national selling organization designed to bring the company closer to its salesmen and customers. With headquarters in Atlanta, Ga., Mr. Rau will manage sales in a territory consisting of Georgia, Florida, Alabama, Mississippi, North Carolina, South Carolina, Tennessee and Louisiana. He will be responsible for the sale of Clinton bulk products corn starch, corn syrup, corn oil, corn sugar (dextrose), lactic acid, dextrins and crude corn syrup. A native of Clinton, Iowa, he has been with the firm since 1940.

J. M. Cheatham, president of Dundee Mills, Rushton Cotton Mills and Lowell Bleachery South of Griffin, Ga., and the Hartwell Mills, of Hartwell and Toccoa, Ga., was elected treasurer of the Cotton Manufacturers Associatioon of Georgia at the meeting of the organization's board of directors on Sept. 12. Mr. Cheatham will fill the unexpired term of Wyllys H. Taylor, who resigned his positions as president of the Newnan (Ga.) Cotton Mills and treasurer of the Cotton Manufacturers Association of Georgia effective Sept. 15. His election is tantamount to his elevation to the association presidency in 1952, a position which his father, the late John H. Cheatham, held in 1935-36.

Harry Bowen, master mechanic at the Duplan Corp. plant at Winston-Salem, N. C., left that position Oct. 1 to supervise

CELEBRATE AT SHOW — Mr. and Mrs. John Spencer of Greenville, S. C., the former Southern manager for Barber-Colman Co., celebrated their 43rd wedding anniversary during the 16th Southern Textile Exposition.

installation of equipment at Duplan's new plant at Burnsville, N. C. . . . Replacing Mr. Bowen at Winston-Salem will be John J. Perkins, who joined Duplan in August from the engineering department of Dan River Mills, Danville, Va.

M. T. Poovey of Newton, N. C., is now superintendent of Smith Mills Co. at Lincolnton, N. C.

R. Donald Harvey, general manager of the Lindale, Ga., division of Pepperell Mfg. Co., has been elected a member of the board of trustees of the Georgia Tech Research Institute. Mr. Harvey has been general manager of Pepperell's Lindale facility since 1937. He is a past chairman of the Textile Operating Executives of Georgia and is a past president of the Cotton Manufacturers Association of Georgia.

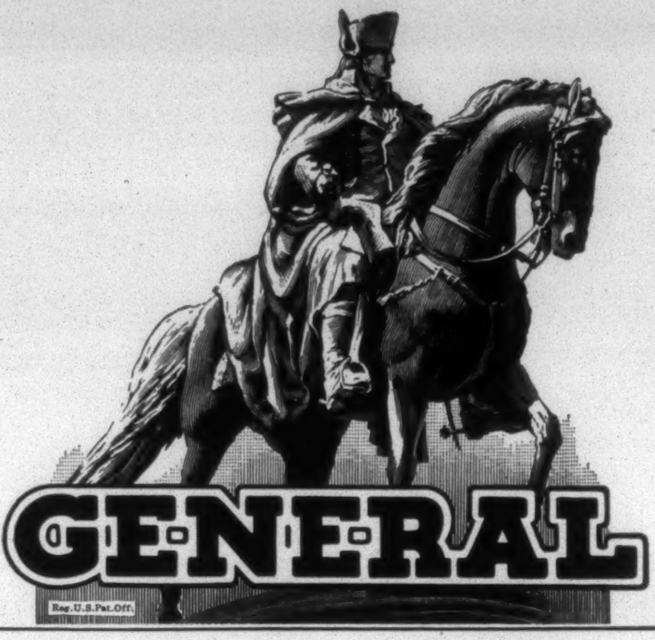
Harry McR. Dalton, who is associated with the Greer (S. C.) Plant of J. P. Stevens & Co., Inc., recently was married to Miss Rebecca Hardaway of Atlanta, Ga. The bridegroom is the son of Robert I. Dalton of Charlotte, N. C., Southern representative for Whitin Machine Works.

E. M. Maxwell *(at left below)* and D. G. Rogers *(right)* have been appointed president and executive vice-president, respectively, of the National Aniline Division of Allied Chemical & Dye Corp., New York, effective Oct. 1. Both men have been with the company for many years in various executive capacities, most recently as vice-presidents. Mr. Maxwell succeeds the late B. A. Ludwig, dean of the American dyestuff industry, who retired recently just prior to his death after 53 years' service with the company and its predecessors. Under his direction National Aniline has become one of the leading producers of dyestuffs, intermediates and detergents.

L. P. Brick of Onyx Oil & Chemical Co., David S. Cook of Clinton (S. C.) Cotton Mills, W. T. Galey, III, of Aberfoyle Mfg. Co. and Earl Heard of West Point Mfg. Co., Shawmut, Ala., have been appointed to the board of governors of the Philadelphia Textile Institute.

L. G. Fisher, superintendent of weaving at the Gerrish-Milliken plant at Pendleton, S. C., has been appointed superintendent of the new Kingsley Mill of Deering, Milliken & Co. now under construction at Thomson, Ga.

Lawson W. Turner of Lynchburg, Va., president of N & W Industries since 1918, has become chairman of the board and has



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High volatile domestic, steam and by-product coal from Boone and Logan Counties, W. Va., on the Chesapeake & Ohio Ry.

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Genuine Pocahontas from McDowell County, W. Va., on the Norfolk & Western Railway.

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High fusion coking coal for by-product, industrial stoker and pulverizer use from Wyoming Co., W. Va., on the Virginian Ry.

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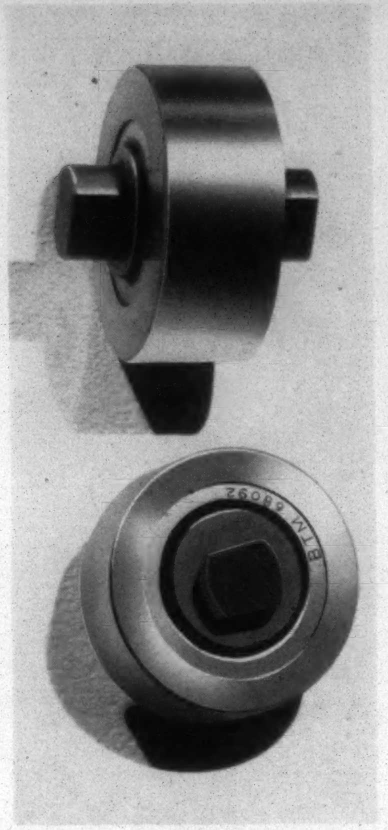

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been succeeded as president by his brother, T. Arnold Turner of Jackson, Miss. The new president will have charge of the firm's plants in Jackson and Magee, Miss., and Magnolia, Ark. . . . Lawson W. Turner, Jr., formerly manager of the firm's cotton mill at Magnolia, has been elected vice-president in charge of Lynchburg operations and the proposed new dungaree plant at Rocky Mount, Va. . . . H. M. Blankenship was elected treasurer, effective Jan. 1. This office formerly was combined with that of president. Mr. Blankenship has been a member of the board for several years.

R. F. Coe, *left,* has joined the sales staff of Emmons Loom Harness Co., Lawrence, Mass., and will represent the firm in North Carolina, South Carolina, Virginia and Tennessee. Mr. Coe, whose address is 2305 Fernwood Drive, Greensboro, N. C., P. O. Box 221, has a fine background of training and experience in the reed business and in addition has a complete working knowledge of all Emmons products. He will be available for practical demonstrations of these Emmons products in his territory. . . . E. G. Paules has joined the Emmons sales staff and from headquarters in Los Angeles, Calif., will represent the firm on the West Coast and in British Columbia, Canada.

W. L. Medlin has been named secretary of Roanoke Mills Co., Patterson Mills Co. and Rosemary Mfg. Co., textile divisions of the Simmons Co. at Roanoke Rapids, N. C. His appointment followed the resignation of R. L. Towe as secretary and chief accountant of the three companies. . . . A. Edwin Akers, who has been assistant secretary and office manager for Roanoke Mills, has been made division controller of the three companies. . . . Wilmer G. Collier, former assistant secretary and office manager at Patterson, was named to succeed Mr. Akers. . . . A. Meikle, for the past 21 years superintendent of Patterson Mills, retired from that post Sept. 30. Mr. Meikle joined Patterson one year before its purchase by the Simmons Co. in 1929.

Eugene W. Stetson has been elected chairman of Textile Banking Co., New York, succeeding the late Harvey D. Gibson.

John Hayes of Lyman, S. C., youngest son of Clifford B. Hayes, vice-president of Pacific Mills, has become associated with William J. Moore, manufacturers' agent of Greenville, S. C. The Moore firm represents Edward H. Best & Co. of Boston, Mass., Redman Card Clothing Co. of Andover, Mass., Easton & Burnham Machine Co. of Pawtucket, R. I., Walter L. Parker Co. of Lowell, Mass., Waukesha (Wis.) Foundry Co., and Chas. A. Schieren Belting Co. of New York.

Otis Marlowe, editor of the *Fieldcrest Mill Whistle,* house publication of Fieldcrest Mills, Spray, N. C., was elected president of the South Atlantic Council of Industrial Editors at the group's recent meeting in Spartanburg, S. C. . . . James P. Sloan of Joanna (S. C.) Cotton Mills Co. was elected vice-president of the group.

John R. Kimberly has been elected president of Berkeley Mills, Inc., Balfour, N. C. Mr. Kimberly also is vice-president of Berkeley's parent company, International Cellucotton Products Co. As president of Berkeley, Mr. Kimberly succeeds Ellison A. Smyth. . . . H. T. Rindal, general manager of Berkeley since its acquisition by International in October, 1946, has been elected secretary of Berkeley.

Gardner M. Hailes has joined Avondale Mills, Sylacauga, Ala., as quality control manager. His previous associations include Burden Iron Co., Troy, N. Y.; F. C. Huyck & Sons, Rensselaer, N. Y.; Remington Arms Co., Bridgeport, Conn.; and Taylor Instrument Co., Rochester, N. Y.

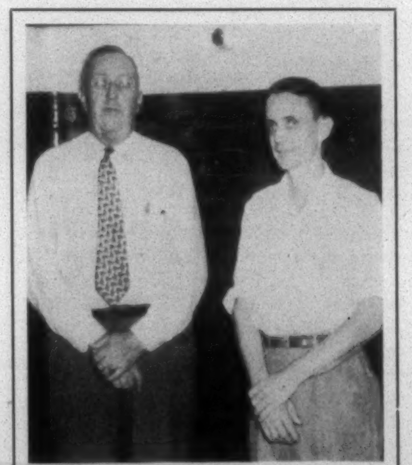
Norman H. Polonsky has been elected vice-president in charge of sales at North American Rayon Corp.

R. W. Gleason has resigned as secretary and treasurer of Consolidated Textile Co., Inc., Lynchburg, Va., and Shelby, N. C. He did not reveal his future plans. . . . Palmer A. Hudson has resigned as assistant superintendent of Consolidated's Ella Division at Shelby, N. C., to become superintendent of the Loom-Tex Mill at Kings Mountain, N.C.

Charles A. Cannon of Cannon Mills Co., Kannapolis, N. C., has been appointed spinner representative on a steering committee of the National Cotton Council's industry-wide Cotton Mobilization Committee.

Dr. Donald J. Montgomery has been appointed as a senior physicist at the Textile Research Institute, Princeton, N. J. He will be directly associated with the institute's internationally sponsored wool research project under the direction of Dr. James H. Wakelin.

Paul Minnix, overseer of spinning at the Manchester (Ga.) Plant of Callaway Mills Co., and Lafayette Lanier, second hand in the spinning room of the Elm City Plant at



NEW JOB, NEW BOSS—A. A. Oliver *(left)*, overseer of carding at Jewell Cotton Mills, Inc., Thomasville, N. C., is shown with his new second hand for the second shift, D. P. Bishop *(right)*. Mr. Bishop was formerly connected with Park Yarn Mills at Kings Mountain, N. C.

LaGrange, Ga., recently completed 25 years with the firm and were awarded service emblems and jeweled, engraved watches.

Thomas D. Russell, chairman of the board of Russell Mfg. co. at Alexander City, Ala., has been asked by Alabama's Governor James E. Folsom to accept appointment to the Tuskegee Institute board of trustees. Full terms on the board run for five years. Mr. Russell presently serves as chairman of the board of the George Washington Carver Memorial Foundation.

Thomas O. Moore, vice-president of P. H. Hanes Knitting Co., Winston-Salem, N. C., recently was installed as commander of Clyde Bolling Post 55 of the American Legion. He is a veteran of World War I.

Herman Cone, president of Cone Mills Corp., Greensboro, N. C., served as head of a five-city drive in the national Crusade for Freedom Oct. 1-14. Mr. Cone served as chairman of the North Piedmont District, covering the key cities of Greensboro, Burlington, High Point, Reidsville and Asheboro, N. C.

Joseph H. Thatcher, since January, 1949, research engineer at the Thatcher Plant of Standard-Coosa-Thatcher Co., Chattanooga, Tenn., recently was appointed assistant superintendent of that plant.

Kenneth W. Fraser of J. P. Stevens & Co., New York, was elected chairman of the Controllers Institute of America for the ensuing year at the recent 19th annual convention of the institute in Chicago. . . . Mr. Fraser, now financial vice-president of the firm, has been succeeded as comptroller by Charles E. Baxter.

Leo W. Rainard, *left,* who has been in charge of the Chemical Research Division of Alexander Smith & Sons Carpet Co., has been promoted to assistant director of research. A graduate of Massachusetts Institute of Technology, Mr. Rainard has been associated with the firm since 1947. He formerly was associated with the Institute of Technology, Charlottesville, Va.

Harold W. Whitcomb, divisional vice-president, and Richard Tuttle, director of research, respectively, at Fieldcrest Mills, Spray, N. C., became honorary members of Phi Psi fraternity at a faculty advisors meeting held Sept. 6-10 at the Fieldcrest Mills Lodge at Fieldale, Va. Phi Psi is the largest textile fraternity in the United States and has active chapters in nine textile colleges and alumni chapters in 12 cities.

J. G. Commins, formerly associated with Teletone Radio Corp. of New York, has joined Fieldcrest Mills, Spray, N. C., as manager of the electric blanket mill. Mr. Commins will temporarily work under the

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direction of J. P. Powell until Mr. Powell can be relieved of this responsibility and devote full time to his duties as manager of bleachery, finishing mill and central warehouse. A native of South Carolina, Mr. Commins is a graduate of Georgia Tech where he received a B.S. degree in electrical engineering and in textile engineering. . . . Promotions announced last month at the blanket mill include that of F. H. Minter as foreman of the wool carding department and A. W. Bailey as assistant foreman on the third shift.

E. L. Gray, chief mechanic at the Trion, Ga., plant of Riegel Textile Corp., has been named to the seven-man authority making plans for the proposed Chattooga County Hospital.

OBITUARIES

Dr. Alling P. Beardsley, 73, formerly chief physicist of the Calco Chemical Division of American Cyanamid Co., died Sept. 23 at a hospital in Plainsfield, N. J. Mr. Beardsley joined Calco in 1915 and was chief physicist at his retirement in January, 1949. Surviving are his widow, a son and a daughter.

William McCallum Cameron, vice-chairman of the board of directors and a member of the executive committee of the Celanese Corp. of America, died Oct. 4 at his home in New York City after an illness of six months. Mr. Cameron joined Celanese in 1921, served as executive vice-president in charge of plant development and erection for a number of years and in 1945 was named vice-chairman of the board.

Robert G. Dort, 58, manager of the staple fiber division of Celanese Corp. of America, died suddenly Sept. 21 at his home in Summit, N. J. Mr. Dort joined Celanese in 1925 and in 1938 was placed in charge of sales and merchandising of acetate staple. Surviving are his wife, a daughter and two brothers.

Joseph S. Mauney, 37, former textile executive of Kings Mountain, N. C., died Oct. 2. He was a son of D. C. Mauney, secretary and treasurer of Sadie Cotton Mills Co. of Kings Mountain. Surviving are his parents, two daughters, a brother and a sister.

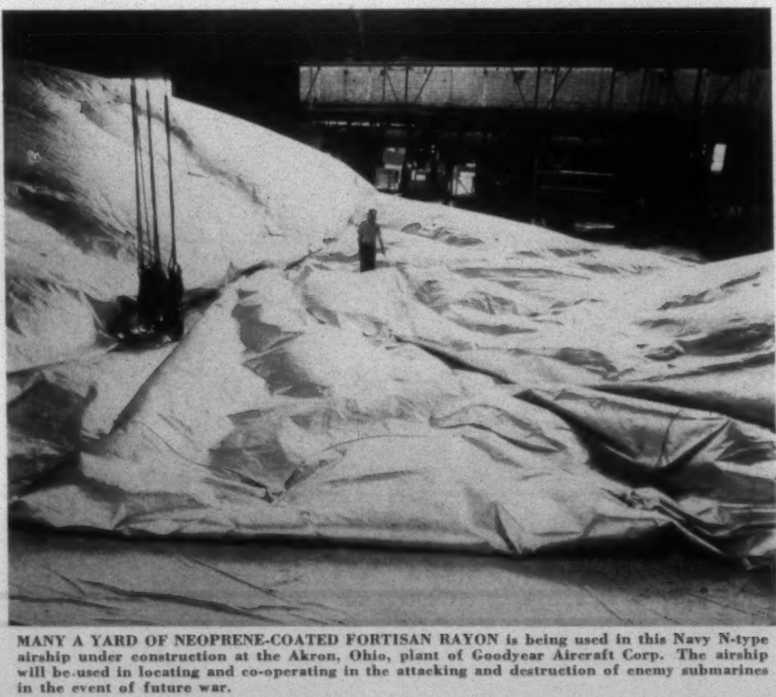
George Wiltshire, 74, retired secretary-treasurer of Woodward Baldwin & Co., Inc., New York dealer in textiles, died Sept. 21 at his home in Jersey City, N. J. Surviving are his wife, a son, a brother and a sister.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

PETERSBURG, VA. — Virginia Columbus Mills, Inc., a new weaving plant, is scheduled to begin operations the first week in November. The company will have 18,000 square feet of floor space and will employ about 50 persons in the production of woven and paper fabrics.

DECATUR, ALA.—Plans for the construction of a multi-million dollar plant to manufacture a new synthetic fiber for the Chemstrand Corp. were announced Sept. 27 by American Viscose Corp. and Monsanto Chemical Co., joint owners of the Chemstrand Corp. Plans call for the plant to be erected on a 656-acre site west of Decatur on the Tennessee River. Simultaneously, it was announced that Chemstrand will shortly begin the operation of a synthetic fiber semi-production plant at Marcus Hook, Pa., where a million pounds of synthetic fiber staple will be produced annually. Up until now, the acrylonitrile-type fiber has been produced only in laboratory quantities. No details were given concerning the size of the Alabama installation, but it was announced that construction would get under way next year. The plant site is bounded on three sides by the Wheeler Reservoir of the Tennessee River, and on the south side by State Highway 20. Chemstrand's new synthetic fiber will be manufactured only in staple form in its initial stages. The fiber has proved highly successful in early tests, and, because of its low specific gravity, will tend to offer warmth in light-weight suitings for men and women. A product of American Viscose Corp. and Monsanto Chemical Co. research and development, it is described as "an American fiber, conceived for American living."



MANY A YARD OF NEOPRENE-COATED FORTISAN RAYON is being used in this Navy N-type airship under construction at the Akron, Ohio, plant of Goodyear Aircraft Corp. The airship will be used in locating and co-operating in the attacking and destruction of enemy submarines in the event of future war.

CAMDEN, S. C.—The story of American industrial developments is the "Big Truth" that can combat the "Big Lie" that is being "spread with such sinister force throughout the world," Crawford H. Greenewalt, president of the Du Pont Co., said Oct. 6 in a speech prepared for delivery to a meeting of the people of Camden after dedicating Du Pont's new $20,000,000 plant here. "Historically, Communism has never yet made inroads in nations which enjoyed a free, dynamic, expanding economy," Mr. Greenewalt said in his talk for an audience gathered in the armory. "It has never failed to make gains in nations where the economy was static or sick. It seems clear, therefore, that our most potent democratic weapon is not a military triumph or a diplomatic coup, but rather a sound, flourishing and, above all else, a free economy." Mr. Greenewalt revealed that, at the present time, nearly half of Du Pont's investment in plants and inventories is located in 14 Southern states, adding, "there is little doubt that this will go beyond the half-way point in the near future when projects now authorized come into actual operation."

GREENVILLE, S. C.—Officials of Woodside Mills early this month announced plans for construction of a $74,240 gymnasium to seat 1,200 persons. Work is scheduled to begin in November with the gym expected to be completed in the Spring. Contract has been awarded to Potter-Shackelford Construction Co. of Greenville.

ROCK HILL, S. C. — Celanese Corp. of America is erecting new facilities at its Celriver Plant here for the production of acetate rayon staple. The plant currently is producing only acetate filament. Daniel

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GASTONIA, N. C.

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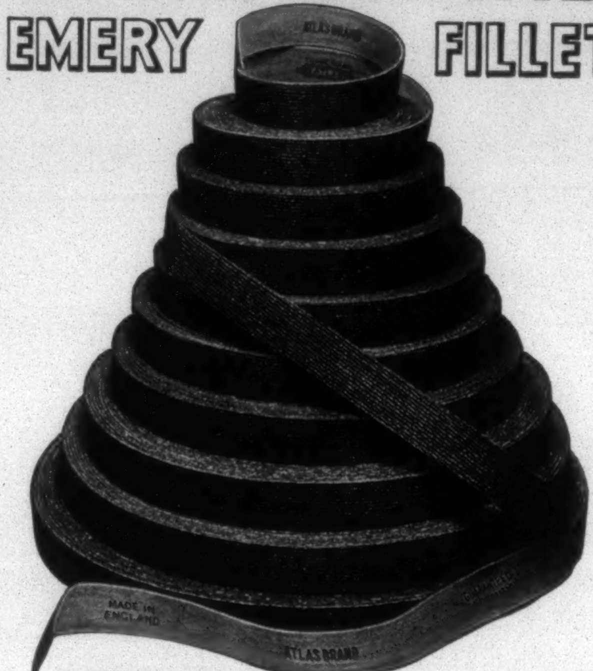
ATLAS BRAND
EMERY FILLET



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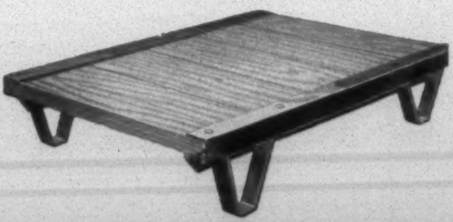
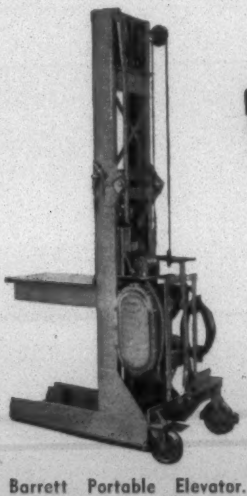


Barrett Steeleg Platforms Last Indefinitely—Do Not Warp—Break or Come Apart.



Barrett Portable Elevator. Simple Design—Sturdy Construction—Safe to Operate.

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WE SELL NOTHING BUT GUARANTEED EQUIPMENT

Construction Co. of Greenville will erect the staple plant.

PICKENS, S. C. — A modernization program currently under way at Pickens Mill has resulted in the installation of new Saco-Lowell Shaw spinning frames in the spinning room and new Saco-Lowell roving frames in the card room. All 638 looms in the plant will be rebuilt. This project began recently and will continue until all looms have been overhauled.

MAIDEN, N. C.—A state charter of incorporation has been granted Mutual Mills No. 2, Inc., to engage in general manufacturing. Authorized capital stock is 100 shares, no par value, of which ten shares have been subscribed by Max Schiffman and Alex Madans of New York City, and E. L. Bradshaw of Salisbury, N. C.

GUNTERSVILLE, ALA.—The welcome mat was out at Lakeside Cotton Mill Sept. 17 as the plant held open house for more than 1,000 visitors who came to see the new machinery recently installed at the plant and improvements made in the mill village by the company and its employees. Mill employees were on hand in each of the plant's departments to explain the machinery to the stream of interested guests. After a two-hour tour of the property and a concert by a local high school band at the soft ball field, Charles Frye, mill superintendent, awarded nine cash prizes totaling $270 to mill residents with the best kept premises, the most improved premises and the best vegetable gardens.

GREENVILLE, S. C. — F. W. Poe Mfg. Co. early this month transferred the deeds of 221 company-owned homes to employees who purchased the homes at prices ranging from $2,000 to $4,000. More will be sold at a later date.

TROUTMAN, N. C. — Iredell Mfg. Co., Inc., has been chartered to engage in the textile manufacturing business. Authorized capital stock is $30,000 with subscribed stock of $10,000 by Robert Brown and J. W. Glenn, Jr., of New York City, and R. A. Collier of Statesville, N. C.

MAYO, S. C.—Installation of a water and sewerage system is under way in the village of Mayo Mills. A water tank with a 12,000-gallon capacity is being set up. Bathrooms will be built in 45 houses in the village which do not have them, and running water will be provided.

DANVILLE, VA.—Dan River Mills has awarded the contract to a Philadelphia concern for construction of a new $3,500,000 plant here. Officials report that the proposed five-story building will be used partly for an expansion of cotton finishing facilities and for the storage of unfinished goods. The building, expected to be completed in 1951, will measure 316 feet by 190 feet and will be of brick, fire-proof construction.

GREENVILLE, S. C.—Reports were circulating in textile trade circles here early this month that Utica & Mohawk Cotton Mills, Inc., plans to build a new plant between Seneca and Clemson, S. C. These reports, however, had not been confirmed by Utica officials at a recent date.

GASTONIA, N. C. — Johnstone Textiles, Inc., has received a state charter to deal in textiles. Authorized capital stock is $100,000 with subscribed stock of $300 by Amos Johnstone, Ruth Johnstone and Lillian Johnstone, all of Gastonia.

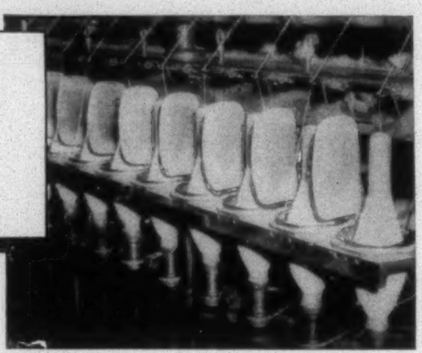
FLORENCE, S. C.—E. I. du Pont de Nemours & Co., Inc., last month purchased a 5.15-acre tract of land near Florence. It is reported in trade circles that the Du Pont Co. plans to build a plant on the site, perhaps similar to the Orlon acrylic fiber plant near Camden, S. C.

DOUBLE SHOALS, N. C.—Double Shoals Mill Co., producer of 20/2 ply carded yarn, has been purchased by Slater Bros. Mfg. Co. of Paterson, N. J., for an undisclosed sum. Officials report that an addition of a weaving plant at the mill is contemplated.

GREENVILLE, N. C.—A new woolen yarn mill is to be operated here by Greenville Mills, Inc. Greenville Mills recently signed a long-term lease for the buildings of Greenville Spinners, Inc., which formerly were occupied by American Lady, Inc. The concern is headed by S. L. Duffett of Laurinburg, N. C.

JONESVILLE, S. C.—Forty homes in the village of Wallace Mfg. Co. have been purchased by employees. Records reveal that

SPIN BIGGER PACKAGES



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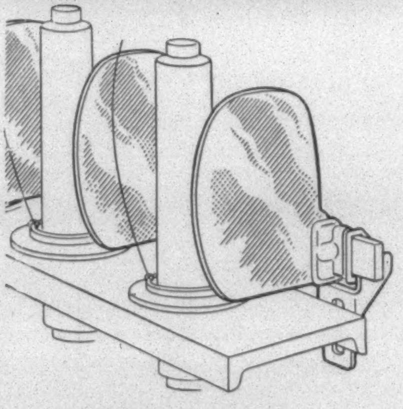

24 different shapes and sizes

Whitehead Permalite Shields are strong as steel but many times lighter. They mount right on the ring rail and can be flipped back for doffing. Available in a complete range of shapes and sizes for any spinning or twisting need—tall, slim ones; short, broad ones; big ones and little ones. And with all their superiority, they cost no more!

EASY TO INSTALL—Simply drill and tap ring rail. We supply the shields and bar drilled to your gauge and ring count, together with proper support hangers and all screws and washers.

EACH JOB ENGINEERED—When ordering specify rail width, thickness of back flange, gauge and number of rings in each rail on one side only, as 24-22-22-22-24.

ONLY WHITEHEAD PERMALITE SHIELDS OFFER THESE ADVANTAGES

- Fewer ends down; some mills report 27% less
- Use of lighter travelers which reduce power costs, wear of rings and travelers
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- Less vibration, wear of cams, worm gears and lifter-rod bearings
- Reduction of live weight—from as much as 300 lbs in old slotted steel shield assemblies to as little as 35 lbs per frame
- No attention after installation

OVER 4,000,000 IN USE BY MORE THAN 350 AMERICAN MILLS

Immediate delivery from stock on all items

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Walter Coleman, Box 722, Salisbury, N. C.
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Ed F. Brown, 417 Dale Avenue, Knoxville, Tenn.
NORTHERN REPRESENTATIVE
Matthews Equipment Co., 93A Broadway, Providence, R. I.

the employees paid $66,175 for the 40 homes. Wallace Mfg. Co. is a division of J. P. Stevens & Co., Inc.

LINCOLNTON, N. C. — Massapoag Mills Corp. has under construction an addition which will increase production by about 25 per cent. The addition will provide floor space for installation of 20 additional wide looms. The plant at present operates 60 looms which weave duck from yarn spun at the mill.

SPARTANBURG, S. C.—The Whitney Division of Naumkeag Steam Cotton Co. is expected to be ready to go into partial production late this year. The plant currently is being renovated and machinery installed.

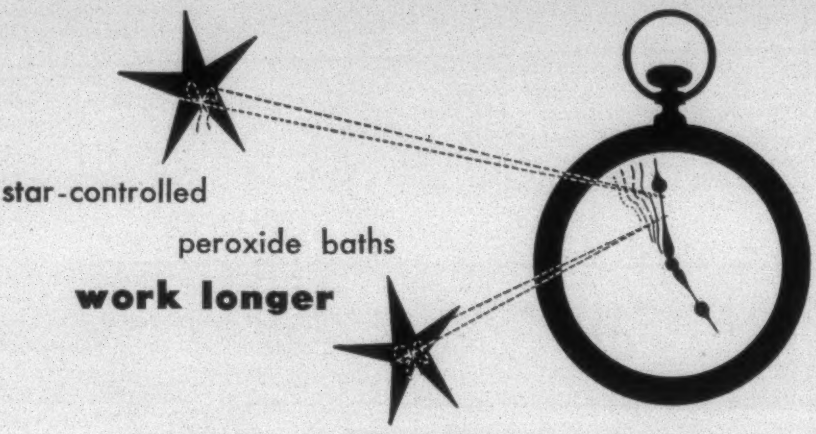
NEWNAN, GA.—In a move to co-ordinate its spinning and finishing production, American Thread Co. is moving machinery from two of its other mills to its newly acquired property here. Machinery to be installed will be transferred from the spinning unit at Fall River, Mass., which was closed May 2, 1949, and from the firm's Merrick Mills at Holyoke, Mass. The buildings at Newnan, which comprise about 100,000 square feet, formerly were occupied by McIntosh Mills, which closed down about a year and a half ago.

HONEA PATH, S. C.—Construction of a one-story addition to Chiquola Mfg. Co. was started last month and the facility is expected to be completed by mid-November. The addition will provide space for the operation of 100 new looms. Officials report that spinning and carding facilities are sufficient to support the increased loom production.

CRAWFORD, GA.—An addition of 8,400 square feet of floor space at the Crawford Plant of Jefferson Mills, Inc., has permitted the installation of additional machinery and relocation of the cloth room, providing for increased production and improved flow of materials. Relocation of the cloth room provided space for additional spinning frames which are now in process of installation. The card room has been extended to accommodate more cards. Fluorescent lighting is used throughout the plant.

RAEFORD, N. C.—Robbins (N. C.) Mills, Inc., large weaver of synthetic fabrics, announced Sept. 18 that it had arranged, through Dillon, Read & Co., Inc., financing of $8,000,000 20 year notes with the Mutual Life Insurance Co. of New York. Proceeds of the loan will be used to retire $1,400,000 of notes now held by the Mutual Life and toward constructing a new mill at Raeford for the spinning and weaving of synthetic fibers.

VINTON, VA. — In recognition of their continued industrial safety record, employees of Roanoke Weaving Plant, Burlington Mills Corp., have received Liberty Mutual Insurance Co's. accident prevention flag emblazoned with a star of a second-time award. The latest award was for completion of two



Star Silicate used as an assistant in bleaching holds on to the oxygen molecules in the peroxide bath until release is needed for bleaching. Leading mills find that Star Silicate increases their output and at the same time decreases cost. In either standing bath or saturator systems, Star Silicate extends the working life of the bleach bath. You can be sure when you look at Star Silicate's brilliancy that here is the key to controlled bleaching. Star's purity makes it stable to dilution and heat, and its reserve alkalinity increases the working life of the bath. Send for a free copy of booklet "Textile Processing with PQ Silicates".

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HIGH QUALITY COMBED and CARDED KNITTING and WEAVING YARNS

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million man-hours without a lost-time accident. At the recent presentation ceremonies Grover C. Pagans, a member of the plant safety committee and representing the employees, received the blue and white flag from Engineer W. F. Bolt of Liberty Mutual. The Vinton plant received its first award in November, 1949, when the one million man-hour mark was reached.

CLARKESVILLE, GA.—Ground was broken late in September for construction of a rayon weaving mill for United Merchants & Manufacturers, Inc. The new plant will be approximately 400 feet square, making available some 152,000 square feet. It is expected to be completed by June, 1951.

CEDARTOWN, GA.—Goodyear Clearwater Mills Sept. 28 announced the sale of its 204-home village to employees. About 75 per cent of the employees already have arranged for the purchase of their homes, it is reported.

CARTHAGE, N. C.—Judge H. Hoyle Sink, in a hearing recently in Carthage, announced his decision on the closing of Carthage Weaving Co. Judge Sink ordered the property left in the custody of the receiver, who was instructed to notify all creditors of a meeting to be held Nov. 3, at which time the future course of the business would be determined—whether it would be liquidated and the proceeds distributed to pay its debts, or whether it would attempt to continue operations.

SWEETWATER, TENN. — Machinery and equipment of Sweetwater Woolen Mills was sold at public auction recently, bringing an estimated $115,000. One of the principal buyers was John J. McCloskey, machinery dealer of Collingswood, N. J., who purchased 52 Crompton & Knowles motor driven, 82-inch automatic looms.

KANNAPOLIS, N. C. — Construction has started on a large, "L" shaped, three-story addition to Cannon Mills Co. Officials have not indicated what machinery will be installed or how much the new structure will cost.

LINCOLNTON, N. C.—Smith Mills Co., producer of carded yarns, is building an addition to its plant which will approximately double the present size of the plant. Additional spindles to be installed will increase the total from about 5,000 to 9,000.

For The Textile Industry's Use

EQUIPMENT — SUPPLIES — LITERATURE

Paisley Products Opens Charlotte Service Office

Joseph Morningstar, president of Paisley Products, Inc., announced Oct. 2 the opening of a sales and technical service office at 825 West Morehead St., Charlotte, N. C. The new office will provide sales and service coverage for North and South Carolina and parts of Virginia, Georgia and eastern Tennessee. In addition to the full view line of Paisley starch and dextrine based adhesives, flexible animal glues, resin and rubber emulsion cements and casein glues, the office will also handle sales and services on tapioca flour, potato starch and corn dextrine products produced by Paisley's parent company, Morningstar, Nicol, Inc., New York City. A separate department will specialize in the textile industry products, sizings and chemical specialties produced by the two firms.

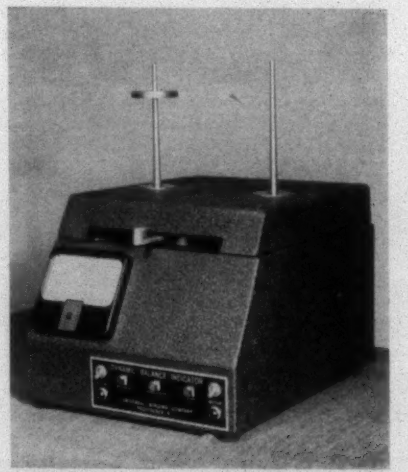
The present staff assigned to this office includes Milton F. Lenz on adhesives, Frank Martin on starches and dextrines and Lee Kritzer on textile industry products.

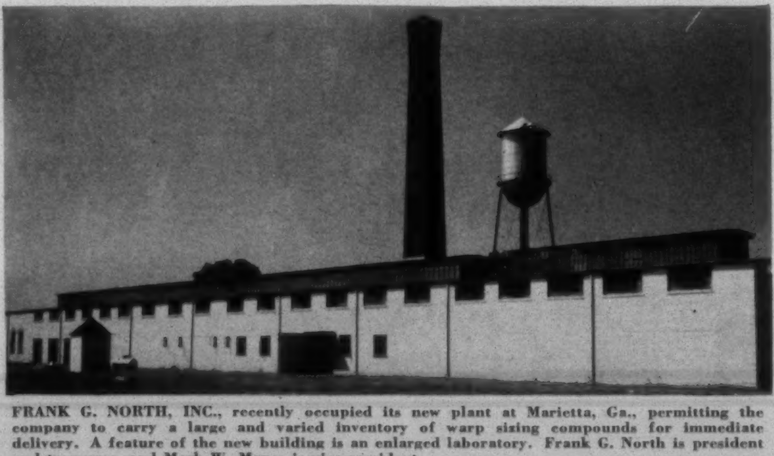
The development of industrial adhesives for labeling, sealing, fabricating and packaging operations has long been an important phase of the Paisley operations. The technical services they extend to adhesive users is exemplified by their trade mark "Paisley Scientific Adhesive Service."

Universal Develops New Dynamic Balance Indicator

The Atwood Division of Universal Winding Co. has recently developed a new instrument, the Dynamic Balance Indicator, which permits bobbin unbalance measurements to be made accurately, quickly and inexpensively within the mill. The Dynamic Balance Indicator is a compact instrument which consists of two spindles that can be driven alternately at normal spindle speeds plus an electronic system of measuring the unbalance of the bobbin running on either spindle.

Spindle bolster vibration caused by bobbin unbalance is picked up by a coil and converted into an electric current. This current, which is then amplified by an electronic circuit, indicates the degree of bobbin unbalance on a meter in the face of the instrument. The instrument is easy to adjust and operate and spindle blades are available for all types of twister bobbins having a net yarn capacity up to two pounds.





FRANK G. NORTH, INC., recently occupied its new plant at Marietta, Ga., permitting the company to carry a large and varied inventory of warp sizing compounds for immediate delivery. A feature of the new building is an enlarged laboratory. Frank G. North is president and treasurer, and Mark W. Mayes is vice-president.

Proctor & Schwartz Tries New Customer Relations Approach

The tremendous interest in the Phillies baseball team this year resulted in a new customer relations approach by Proctor & Schwartz, Inc., Philadelphia drying machinery manufacturer. The company prepared a special mailing piece, reprinting all the pictures of the Whiz Kids and then asking customer's engineers all over the country to pick out the team player who would have

AVOID DEFECTS DUE TO TIGHT AND LOOSE ENDS

These new pocket-size precision instruments with dampening device enable you, your workers and overseers to detect faulty tensions that cause tight and loose ends. They are used:

IN WARPING—where uneven tension may cause end breaks or adhesions of ends during weaving.

IN WINDING—to adjust swifts uniformly.

IN QUILLING—to prevent hard and soft quills.

The new SIPP-EASTWOOD TENSOMETER gives a steady reading without fluctuation in all uses. It fits handily into your pocket. Knurled case prevents the Tensometer from slipping out of your hand accidentally. Soon pays for itself in the savings it effects.

Send for free illustrated descriptive folder and prices.

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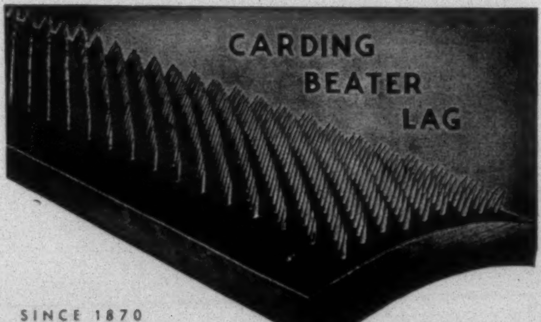
PINS and LAGS



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A BIG MODERN PLANT PLUS 80 YEARS of EXPERIENCE

It means that you can speed your production by making use of all the knowledge we have gained on needle-pointed specialties for the preparation of wool and other fibers. In all the field—no plant like this—no such rich fund of experience—no such quality. Your inquiries will receive prompt attention.

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MORE? SURE!

Yes, Lots More

EXTRA VALUE

EXTRA SERVICE

Are Jam Packed into

Singleton's "Draft Horse"

LONG DRAFT APRONS

Made of Select, Super-Finished Texas Calfskin By Expert Craftsmen On Especially Built Machines, Gauged To Micrometric Accuracy of Measurement. Absolute Uniformity. Give You the Service and Results You've Always Wanted in an Apron.

ALSO . . . .

LOOM STRAPPING

For All Your Needs Of The Finest Texas-Tough Hair-on Leather For Maximum Service.

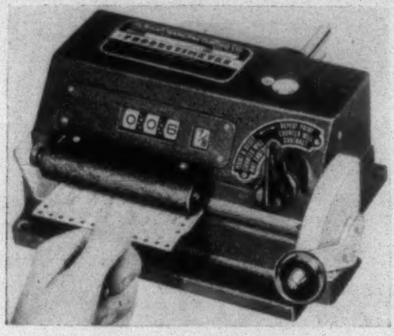
A Pleasure To Submit Samples And Quote Our Sensible Prices.

RUSSELL A. Singleton & SONS

BLANCO, TEXAS

Satisfying Customers For a Quarter Century the highest batting average during the World Series. In copy on the inside, the mail piece headlines, "You and Proctor & Schwartz Are a Winning Combination." The self mailer brought in over 9,000 cards before the end of the series. In addition, the company sent a puzzle card to customers and in offering the puzzle (to put four cards together to form a perfect square) pointed out that "Proctor engineers can help you solve your problems."

Lineal Measuring Counter Gives Printed Yardage Count



A new Model PVR lineal productimeter, with ⅛th wheels, has been developed from the printing counter design, especially for measuring cloth, paper, fabrics, etc., to give a direct reading in yardage and a printed record to the nearest ⅛th yard. It is equipped with a clutch control lever on the face of the counter to permit optional resetting with each print, or printing multiple times without resetting the counter. When the clutch control lever is in vertical position the counter will subtract.

A special feature is the card positioning guide which is adjustable to effect printing on various sized cards. Accurate lineal measurement on a card form becomes a certified record for customer and mill of the exact yardage delivered. Legible printed figures, which cannot be misread nor miscopied, eliminate errors.

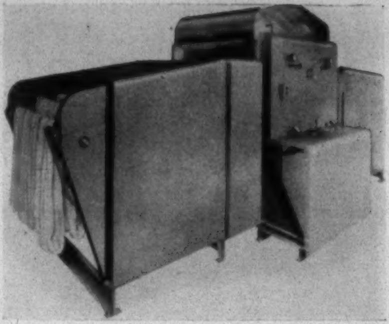
Operating efficiency is increased, as printing the count is much faster than long-hand writing, and the resetting lever permits almost instantaneous resetting. Costly transcribing time is saved through the printing of multiple forms by a single motion of the lever.

This rugged, precision-built printing counter may be used for lineal measurement on a variety of machines . . . inspection, finishing, folding, perchers, warpers, beamers, tenters, etc. It is manufactured by Durant Mfg. Co. of Milwaukee. Literature available on request to the firm's headquarters at 1957 North Buffum Street, Milwaukee 1, Wis.

Safety Chart For Oilers Offered By Lubricant Firm

New York & New Jersey Lubricant Co., manufacturer of Non-Fluid Oil, has just printed a safety chart for oilers. It is printed on heavy card stock suitable for hanging in a prominent position, and lists 15 "things to remember" when lubricating machinery. Copies of the "Safety for Oilers Chart" may be obtained by writing to New York & New Jersey Lubricant Co., 292 Madison Avenue, New York, N. Y.

Kearny Boosting Improved Skein Conditioning Machine



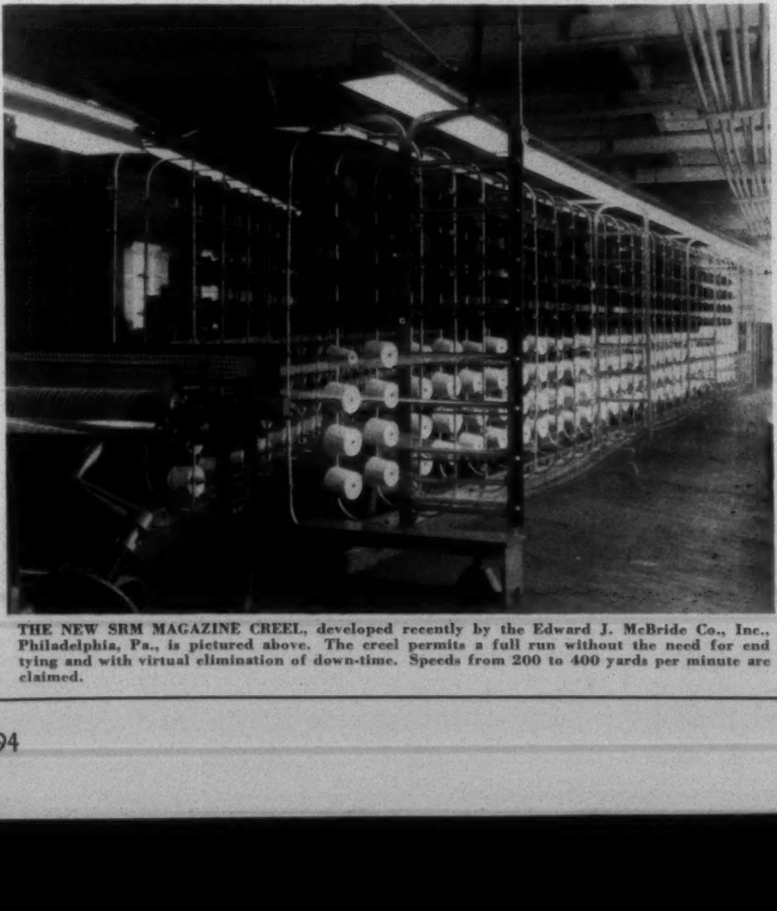
Kearny Mfg. Co., Kearny, N. J., currently is boosting its Hygrolit skein conditioning machine, Model S-3, which has been remodeled and reconstructed during the last year. According to the firm, the skeins on metal or wooden bars as they come from the dryer are placed on the loading frame. Conveyor chains with bronze carrier links lead the bars to the spray area where the actual conditioning takes place. Subsequently the conditioning skeins are automatically transferred to the delivery frame of the machine from where they are removed by the operator.

Operation of the machine is flexible, having a speed control with an approximate ratio of one to four, making it possible to pass from seven to 30 carrier bars through the machine per minute. If, for example, each bar carries four pounds of yarn, then seven times four pounds are equal to 28 pounds at the low speed, or 28 times four pounds equal to 112 pounds at the high speed, are treated per minute. Calculated hourly production, therefore, varies from approximately 1,700 pounds to 6,700 pounds.

The ratio of speed between the feeding and conditioning conveyors is 1:5. In other words, whenever the feeding conveyor travels one foot the conditioning conveyor has traveled five feet. This causes the carrier bars to pass through the conditioning chamber with sufficient distance from each other and allows a uniform coverage of the whole skein. On the other hand, the slow moving feeding conveyor gives the operator ample time to keep the loading frame filled.

Four batteries of atomizing nozzles provide for the humidifying of the skeins. The orifice sizes of the nozzles can be changed to suit any requirement for different types of yarn. Each of the four rows or batteries of nozzles can be adjusted individually by means of needle valves installed in these lines to give the required density of the spray. Furthermore, all four nozzle batteries can be regulated collectively through a medium of the bi-pass valve. Individual pressure gauges show at a glance at what pressure the respective manifold of nozzles operates, which is helpful in preparing the records for repeating certain machine settings. The liquid pump is a rugged outboard bearing type bronze gear pump with a pressure of about 70 pounds. Forty to 60 pounds of pressure has been found sufficient for any type of yarn.

Kearny is also circulating literature describing its Lubriknit W, an oil finish which has been developed for the skein dyer of woolen, worsted and hair yarns. The novelty of this material is based on the fact that it can be applied directly in the hot dye bath. According to Kearny, skeins treated with Lubriknit W do not require waxing during subsequent winding since they carry the lubricant from the dye bath. This finish is superior because it is evenly applied to all fibers, whereas through waxing only a certain amount of the fibers in the yarns is covered with the lubricant. Additional waxing on the knitting machines is likewise not



THE NEW SRM MAGAZINE CREEL, developed recently by the Edward J. McBride Co., Inc., Philadelphia, Pa., is pictured above. The creel permits a full run without the need for end tying and with virtual elimination of down-time. Speeds from 200 to 400 yards per minute are claimed.

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Do your Travelers wear out quickly? Is the reason yarn cut or ring cut? A change in style might give more life. Send us some worn Travelers, with a ring, and try our suggested style.
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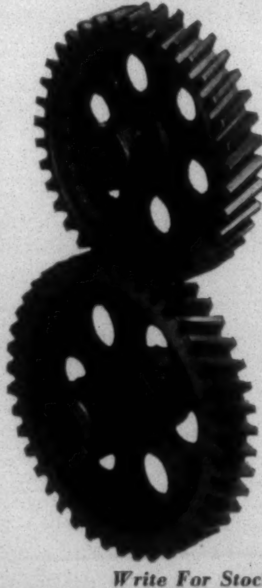

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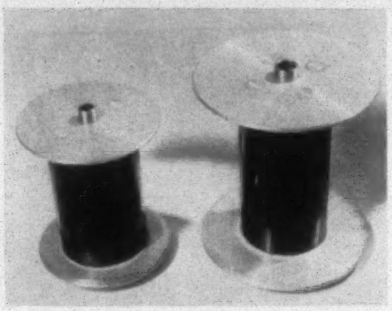
CHARLES KELLEY, Charlotte, N. C.

required, since the yarns treated with Lubriknit W show markedly improved performance, particularly on flat knitting machines. Of great interest is the fact that less fly accumulates in the winding and knitting rooms and that consequently losses from this source together with the invisible losses appear to be reduced, when yarns treated with Lubriknit W are used. Literature is available upon request.

Allentown Announces New Takeup Bobbin For Nylon



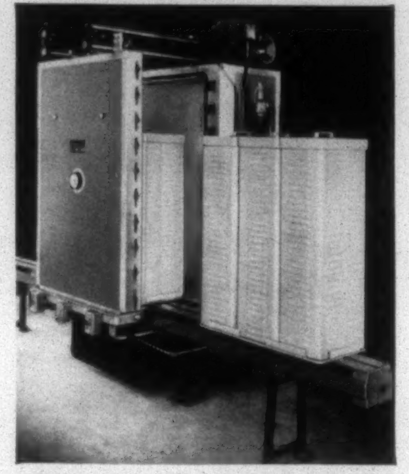
Allentown (Pa.) Bobbin Works recently completed three years research work on a new molded plastic takeup bobbin to withstand the crushing force of nylon. More than two years of mill tests indicates that this bobbin will solve many of the problems formerly found in both maple and metal barrel bobbins. Several other features make this bobbin an unusual and economical one to purchase and to use, the firm states. The unique design of this bobbin makes possible the use of a wide variety of barrel lengths to fit practically any yarn traverse and a wide variety of flange diameters in several different flange materials.

Heads are riveted clear through the body and it is possible to use any type or size of gudgeon. It is said that these new bobbins will withstand the force of even the finest denier nylon yarns. Another feature that these bobbins offer is that in case of damage to the heads, it is possible to return the damaged bobbin to Allentown Bobbin Works and have the heads replaced. The repaired bobbins are said to fully meet the standards of new bobbins.

Textile Engraving Concern Established In Charlotte

A new textile engraving concern, Charlotte Textile Engravers, Inc., has been established at 1200 Elizabeth Avenue in Charlotte, N. C. The new plant will be operated under the supervision of the A.B.C. Engraving Corp. of Patterson, N. J. "The South is capturing the textile industry," declared Albert A. Scala, representative of the A.B.C. concern, "and our decision to move South was in the hope of giving better and more rapid service to our customers." He added that it is the hope of the company to expand in a direct ratio with the growth of the Southern textile industry.

Turbo Machine Co. Offers Crimp Setter For Nylon



Crimp setting of nylon staple or tow can now be accomplished in a precise, mechanical operation with the Turbo crimp setter developed by Turbo Machine Co., Lansdale, Pa. The new machine makes possible the production of 200 to 250 pounds of crimp-set staple per hour. With the Turbo crimp setter, normal processing time is approximately 20 minutes. An operator is only required to load and unload carriers. Each lot of staple or tow remains in the steam retort a predetermined length of time. Because of the automatic operation, there is no variation in quality of crimp-set staple or tow, it is claimed.

One of the outstanding features of the Turbo crimp setter is its electrical timing device which automatically shuts off steam, exhausts chamber through a jet exhaust valve and creates a vacuum which eliminates moisture from the nylon. After the vacuum period, the chamber is brought back to atmospheric pressure and the door opens automatically. There is no loss of labor time with the Turbo crimp setter, it is claimed; no waiting for carriers to be removed and reloaded because one conveyor is in the chamber while the operator is loading the other for processing. Because of this, steam consumption is held to a minimum.

The Turbo crimp setter can be adapted to individual production methods and processes for handling nylon staple. Its flexibility of operation enables the machine to be placed where it best fits into the production sequence. Three standard types of carriers for handling staple to and from the machine are available. Special design carriers can be built to specific requirements. For confirmation or further particulars write William DeTurk, Turbo Machine Co., Lansdale, Pa.

Reiner Brochures Feature Beaming Machine, Creels

New literature currently available from Robert Reiner, Inc., Weehawken, N. J., includes a folder describing the Reiner Model

OCTOBER • 1950

CARD CLOTHING NEWS

and views

WRITTEN MONTHLY BY E. A. SNAPE, JR., PRESIDENT **Benjamin Booth Company** PHILA. PA.

As Time Goes On . . . STRIP-O-MATIC Proves EVEN BETTER Than We Expected!

When first Benjamin Booth Company introduced STRIP-O-MATIC Card Clothing, based on initial tests, we couldn't help but feel it was so good, so unusual, so far advanced, that it would be a real contribution to the textile industry. However, we decided to suppress our claims of STRIP-O-MATIC until industry had sufficient time to make hard, critical use of it.

That time has now transpired, and the result is: STRIP-O-MATIC has proved to be even better than we anticipated!

STRIP-O-MATIC **has** reduced stripping to a minimum . . . from what was once a daily chore, to every two or three weeks. And in so doing, it has provided better carding, better production. Users are confident of that now, and repeat orders attest to their preference for it over the old, conventional method of carding.

The story of STRIP-O-MATIC, we feel, is highly interesting, for it reveals how this unique card clothing came about, how it is constructed to reduce stripping and offer savings, and what these savings are. You are invited to write today for these details and learn how you, too, can profit by using STRIP-O-MATIC. May we hear from you?

Thanks,
E. A. Snape, Jr.,

E A Snape Jr

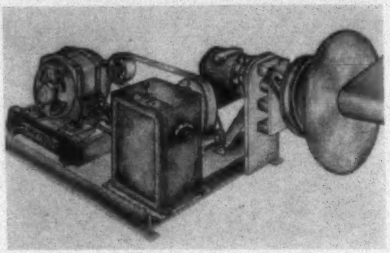
President,

Benjamin Booth Company
Allegheny Ave. and Janney St.,
Philadelphia, Pa.

Representative
OLIVER D. LANDIS, INC.
718 Queens Road Charlotte 7, N. C.
Exclusive Sales Agent (Cotton Division) for Virginia, North Carolina, South Carolina

HD (heavy-duty) beaming machine and an attractive 16-page brochure titled "Creels by Reiner." According to the folder, the Reiner Model HD beaming machine is designed to warp a fine, delicate yarn at high speed without any undue strain on the yarn, and is built for beaming filament rayon, spun rayon, cotton, wool, worsted, linen, acetate, nylon, etc. The brochure describing the various creels produced by Reiner contains many illustrations, charts and schematic drawings outlining in detail the specifications, applications and advantages of the Reiner products.

Duo-Variable Speed Drive Announced By Sjostrom Co.



A new duo-variable speed drive for winding yarn on beams or spools is announced by Sjostrom Machine Co., of Lawrence, Mass. This drive, which is called the Time-A-Trol, produces a constant yarn speed and even tension, it is claimed. The beam is driven at a high speed at the beginning, and this speed is gradually reduced as the yarn builds up. Thus the surface speeds of the yarn is constant throughout the entire winding operation.

The machine consists of two variable speeds, one acting upon the other. There is no contact on the yarn and the operation of the machine is based on the time element required for various weights and types of yarn. For example, a heavy yarn will build up faster than a light yarn, and will therefore take less time to fill the beam.

The Time-A-Trol is calibrated for different types of yarn for individual plants, and it is necessary only to set the dial for the yarn being run. It is claimed that because of the constant yarn speed, only one-half the time is required to fill the beam. It is also claimed that the constant yarn speed produces even tension throughout the wound package, and that this even tension reflects an improvement in weaving and subsequent finishing operations.

New Eriez ATOMagnets Described In Leaflet

Three new models of the Eriez ATOMagnets are described in a leaflet made available by Eriez Mfg. Co., Erie, Pa., producers of magnetic squipment used to separate tramp iron from materials in process. Listed as the Extrapower, Ultrapower, and Superpower models, each in a full range of sizes, ATOMagnets are constructed for use on wood or steel chutes, hoppers, tables, etc. Descriptive data on proper installation is indicated in the literature.

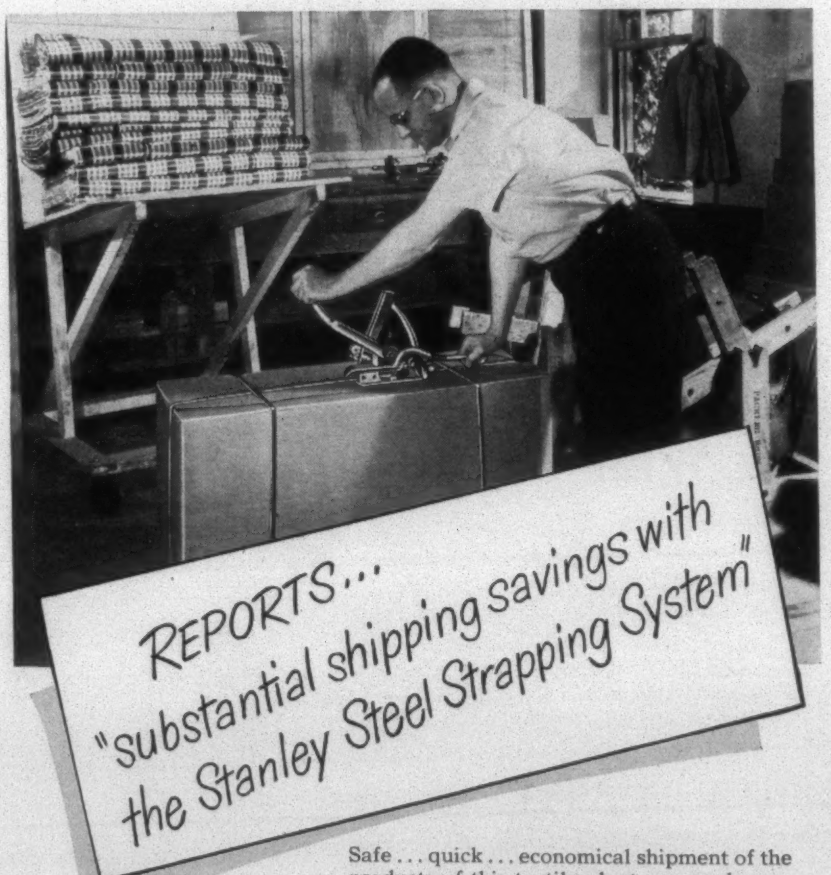
Five new features are noted: (1) riveted construction adds rigidity, increases structural strength; (2) continuous hinge for easy and lasting installation; (3) cover adds to longitudinal stiffness, prevents accumulation of iron on backs of castings with consequent shortening of magnetic circuit; (4) insulation confines magnetic strength to working surface; (5) flush air gap prevents gathering of fine iron which can short out magnetic field. Copies of the ATOMagnet leaflet are obtainable by writing to the company.

Addition To Glycol Series Described In New Bulletin

Data Bulletin No. 303, an eight-page folder giving properties, characteristics, uses and handling information for 1,4-butanediol, a valuable addition to the glycol series now available in pilot plant quantities, was issued this month by Antara Products, General Aniline & Film Corp., 444 Madison Avenue, New York City, and is available upon request. The Bulletin includes a complete chart of potential reactions for 1,4-butanediol, as well as a complete bibliography of reference material. According to the firm, 1,4-butanediol is a saturated glycol with a molecular weight of 90.1. Its physical properties and highly versatile chemical behavior make it a valuable addition to the already-available glycol series.

Tests have shown, the firm claims, that 1,4-butanediol possesses humectant proper-

CRANSTON PRINT WORKS COMPANY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The same benefits and economies which the Stanley Steel Strapping System has brought to the Cranston Print Works Company may be yours if you act now. The complete System includes tools, reels, seals, strapping and accessories — everything needed for *your* application. Write for details or have our representative call. The Stanley Works, Steel Strapping Div., 201 Lake St., New Britain, Conn. Offices in principal cities.

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ties. It is compatible with casein, animal glue, and gelatin. Its properties indicate its use for such purposes as a rayon lubricant, warp-size component, additive for sizing and finishing baths.

Gulf Introduces New Oil For Spindle Lubrication

A new compounded spindle oil for textile mill lubrication has been developed and is being marketed by Gulf Oil Corp. The product is a result of several years of extensive research. Named Gulfspin, the new oil is specifically designed to keep textile spindle blades and bolsters clean while reducing friction and power consumption.

The problem of properly lubricating spindles has been a major one in the textile industry for many years. High speeds, oil oxidation, and the associated accumulation of sludge and contaminations in the spindle cases has made it difficult to properly lubricate these points. Gulf scientists and technicians believe Gulfspin has solved the problem.

Gulfspin oils do not increase in viscosity in service, it is claimed. This effects considerable power savings since conventional spindle oils often thicken in use and consume increased power. Gulfspin oils will carry greater loads than straight mineral oils and consequently reduce wear, the firm states. They also have good rust preventative characteristics, which help to reduce or eliminate corrosion difficulties which often result from humid conditions existent in textile mills.

The new product has the proven advantage of superior wetability, high resistance to oxidation, and higher resistance to atomization. Gulf believes it will aid in reducing maintenance expense, increase production, and reduce vibration while reducing high oil consumption. Test users of Gulfspin report improved lubrication and complete absence of sludge deposits after many months of service.

New Catalog Is Issued By Alrose Chemical Co.

Recently made available to the industry is the new Alrose Chemical Co. catalog "Surface Active Agents and Organic Chemical Specialties." Among new products listed in the catalog are the Alrolenes, Alrosept MBC-50, Alromine RA, Alrowax 75, Alrodynes, Alrowet CA and Alrosperse 40-K. Specifications and applications also are given. For further information write Alrose Chemical Co., Box 1294, Providence, R.I.

Du Pont Booklet Features Developments In Dyeing

Thumbnail descriptions of recent developments in the dyeing of the Du Pont Co's. synthetic fibers, nylon, Orlon acrylic fiber, and the experimental Fiber V, have been compiled in a booklet which was distributed at the company's exhibit—"Dyes for Fibers of Today and Tomorrow"—at the meeting of the American Association of Textile Chemists and Colorists Sept. 28-30 at Portsmouth, N. H.

The booklet first summarizes recent data on a new range of neutral-dyeing colors, now being marketed by the company under the name of Neutracyl, which are designed specifically to produce the highest possible light fastness on nylon. As the booklet points out, the Neutracyl dyes can be applied in the same short time cycle as the acid colors but possess decidedly superior light and wet fastness on filament nylon. They also are especially recommended for dyeing nylon staple in the form of stock, top, or tow.

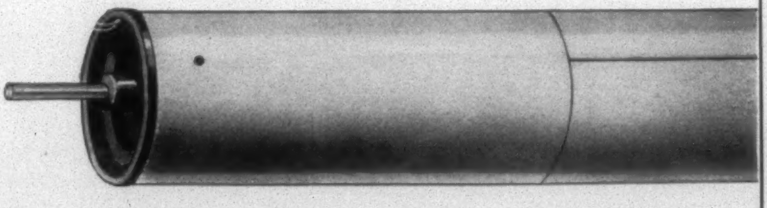
Orlon, the booklet relates, is dyeable with dispersed acetate colors and selected vat colors, but the depth of shades obtainable under normal mill conditions is strictly limited. The booklet highlights dyeing techniques and the properties obtained for each category of dye. Orlon acrylic staple, a form of the new fiber not yet in commercial production, is dyeable with a number of the various dyestuffs groups which include the acid, direct, chrome, acetate, vat, and basic dyes, the booklet states.

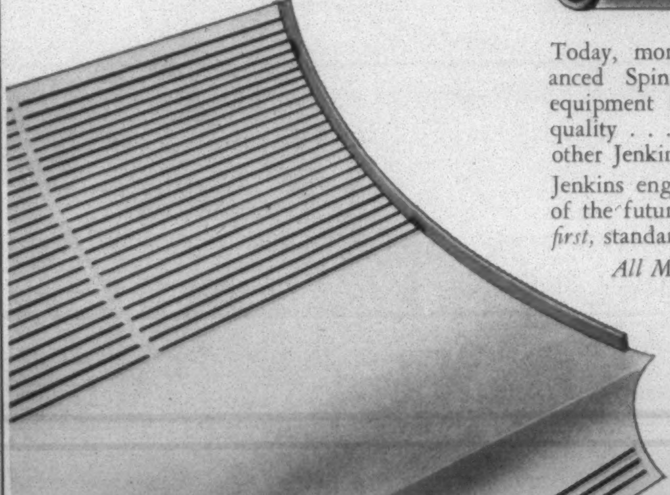
On the subject of dyeing Fiber V, an experimental fiber under investigation in both staple and continuous filament forms, the booklet says that the dispersed acetate dyes have thus far been the only group successfully applied to this new fiber on a large scale from an aqueous bath. The Napthanil colors and vat dyes have also shown good possibilities. Combinations of acetate dyes

Jenkins Products . . .

Engineered For Progressive Mills

Jenkins spinning cylinders and card screens are engineered by men who for the past 38 years have pioneered *improved metal products* for textile leaders.





Today, more manufacturers are demanding Dynamically Balanced Spinning Cylinders, machined on exclusive Jenkins equipment to give smoother performance and more uniform quality . . . Card Screens with advanced-design grid bars, and other Jenkins features which insure perfect screen settings.

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and vat pigments are applicable by the Thermosol process, which is in the development stage. Fiber V yarns, sewing thread, and raw stock are being dyed at high temperatures under pressure in circulating machines.

In its exhibit, Du Pont showed examples of the dyeing and printing of fabrics made of Orlon acrylic fiber and experimental Fiber V, and the wash and light fastness of each. The company also exhibited a range of the Neutracyl colors for nylon on both raw stock and ball tops as well as samples of Neutracyl-dyed nylon-faced upholstery and government fabrics.

Special Finishes Listing Contribution To Industry

The great interest in and demand for "Special Finishes for Service, Protection and Appearance" prompted the United States Testing Co., Inc. to issue a fourth edition in booklet form. This directory gives trade names, their manufacturers and the fibers each finish may be applied to; also information as to properties of the various finishes. Originally, this listing appeared in Testing League Bulletin, a monthly subscription publication covering the textile picture, put out by the United States Testing Co., Inc. Textile manufacturers and finishers enthusiastically requested copies for their sales departments and other personnel. This demand prompted the subsequent editions. Through continuing research and the cooperation of textile manufacturers and finishers, this current issue has been completely revised and brought up to date. Copies are available by writing to the Consumer Service Division, United States Testing Co., Inc., 1415 Park Avenue, Hoboken, N. J.

New Firm, Atlas Rubber Co., Established In Greenville

The Atlas Rubber Co. has been established at Greenville, S. C., for the manufacture of rubber roll loom shock pads and many other products. The firm will manufacture a complete line of industrial truck wheels with rubber treads and will retread rubber tires on wheels of all types for industrial trucks. A specialty will be harness sheaves made of rubber with nylon bearings.

W. F. Edmonson, who was for many years with U. S. Rubber Co. at Detroit, Mich., and who has the "know-how" for the manufacture of the products named above, has moved to Greenville and will be the chief engineer for Atlas Rubber Co. The plant is just now getting into production.

Niacet Zinc Acetate Is Described In Bulletin

A new bulletin on Niacet zinc acetate presents in detail the physical and chemical properties, latest specifications, and shipping and handling information on this chemical. Zinc acetate is a mordant or a resist, depending on the nature of the dyestuffs, in the printing and dyeing of fabrics. Its use as a weighting agent for silk is reported. Copies of Niacet bulletin five can be obtained from Niacet Chemicals Division, United States Vanadium Corp., 975 Niagara Building, Niagara Falls, N. Y.

New Circular Is Released By General Dyestuff Corp.

General Dyestuff Corp., 435 Hudson Street, New York City, announces the release of the following new circular: G-657—Indanthrene Printing Red BA Extra Paste Fine.

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912, March 3, 1933, and July 2, 1946.

Of Textile Bulletin, published Monthly at Charlotte, N. C., for October, 1950.

State of North Carolina
County of Mecklenburg

Before me, a Notary Public in and for the state and county aforesaid, personally appeared Junius M. Smith, who, having been duly sworn according to law, deposes and says that he is the Business Manager of Textile Bulletin and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Acts of March 3, 1933, and July 2, 1946, embodied in Section 233, Postal Laws and Regulations, to wit:

That the names and addresses of the publisher, editor and business manager are:

Publisher, Clark Publishing Co., Charlotte, N. C.; editor, David Clark, Charlotte, N. C.; business manager, Junius M. Smith, Charlotte, N. C.

That the owner is: Clark Publishing Co., Charlotte, N. C.

That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

(Signed) JUNIUS M. SMITH,
Business Manager.
(Signed) MARGARET L. ROBINSON,
Notary Public.

(My commission expires March 14, 1952.)

Sworn to and subscribed before me this 10th day of October, 1950.

PROTECT WHAT YOU HAVE

. . . by remembering how you got it!

Somewhere in the history of any successful business will be found accounts of early struggles on the part of its founders—of faith in individual ability—of willingness to work and sacrifice because of the opportunity for advancement. There will be incidents, too, of hopeful, able, confident people who were willing to invest their savings—whether big or small.

Thus, since the days of our forefathers, has a business been conceived in the American System . . . born in capitalism . . . reared to the productivity that means success.

If your security today rests upon a similar saga of yesterday—Remember it—Tell it—and Demand the democratic practices upon which it stands!

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Three S.T.A. Divisions Plan Meetings

Three divisions of the Southern Textile Association have meetings scheduled within the next few weeks. The first parley slated is that of the South Carolina Division Nov. 4 at the Clemson College School of Textiles with Chairman J. C. Godfrey of Calhoun Mills, Calhoun Falls, S. C., presiding.

L. M. Howell of Howell-Wilson Co. will address the South Carolina group on yarn defects. Following Mr. Howell's address, a panel of seven will consider a list of eight prepared questions on the subject. The panel will be composed of W. F. Howard, superintendent of Pacific Mills, Lyman; B. T. Morgan, superintendent of Mill No. 1 of Jackson Mills at Iva; Jerry H. Wyatt, superintendent of Chesnee Mills; Joseph L. Delany, superintendent of Joanna Cotton Mills Co.; James Lybrand, assistant superintendent of Union-Buffalo Mills at Union; A. B. Tennant of the Lancaster Plant of Springs Cotton Mills; and J. B. Templeton, superintendent of the Poinsett Plant of Abney Mills at Greenville. A block of 300 seats to the Clemson-Duquesne football game on the afternoon of Nov. 4 has been set aside for members of the association.

The Eastern Carolina Division will meet Nov. 11 at Erwin Mills Auditorium, West Durham, N. C., with Chairman J. R. Meikle of Rosemary Mfg. Co., Roanoke Rapids, N. C., in charge. Following an initial session of general interest, which begins at 9:45 a. m., the meeting will be divided into two groups devoted to technical discussions on yarn preparation and fabric production. S. G. Riley, Jr., of Pilot Mills Co., Raleigh, N. C., is secretary of the division.

On Dec. 2 at Charlotte, N. C., the Piedmont Division will have its first program in several years under the guidance of Robert T. Stutts of Carolinian Mills, Inc., High Shoals, N. C., temporary chairman, and a past president of the association. The meeting will begin at 10 a. m. and the scene will be Fireman's Hall, East Seventh Street (U. S. Route 74-A). Plans are under way to serve a buffet luncheon or barbecue, at nominal cost. The group has secured 100 tickets (available first come, first serve at the meeting) to the annual Shrine Bowl game between North and South Carolina high school all-star football teams, which will take place that afternoon in nearby Memorial Stadium.

T.R.I. Convention Program Set

The 21st annual meeting of the Textile Research Institute will be held at the Waldorf-Astoria Hotel in New York City on Nov. 16-17. The laboratories of the institute at Princeton, N. J., will be open for inspection Nov. 18.

Morning and afternoon technical sessions will feature the opening day of the event. Visiting British textile educators will be honored at a luncheon that day at 12:45 p. m. The following day's activities will be featured by a general session and a symposium on performance and serviceability of fabrics. Many authoritative speakers have been scheduled for the meeting.

Recent developments in laboratory control and testing instruments, as well as other exhibits of general interest to members and guests, will be shown in the Astor Gallery adjacent to the meeting rooms. Representatives of each manufacturer will be on hand to demonstrate the equipment.

During open house at the institute laboratories Nov. 18, the staff of the institute will be present to discuss techniques and equipment used in connection with the institute's current research program. In addition to the inspection of the laboratories, the program will include a brief guided tour of the Princeton University campus and a luncheon at the Princeton Inn.

Yarn Group Names Mobilization Committee

A Carded Yarn Mobilization Committee has been created by the Carded Yarn Association to represent the association in Washington on matters relating to the carded cotton yarn spinning industry.

Appointed by J. Craig Smith of Avondale Mills, Sylacauga, Ala., association board chairman, the new committee is composed of G. P. Barnwell of Bibb Mfg. Co., Macon, Ga., chairman; Hymann L. Battle of Rocky Mount (N. C.) Mills; E. N. Brower of Rockfish-Mebane Yarn Mills, Inc., and Brower Mills, Inc., Hope Mills, N. C.; J. A. Cooper of Harriet Cotton Mills and Henderson Cotton Mills, Henderson, N. C.; J. Boyce Choate of Piedmont Mop Co., Charlotte, N. C.; C. V. Garth of Shuford Mills, Inc., Hickory, N. C.; H. M. Jones of Waverly Mills, Inc., Laurinburg, N. C.; and Mr. Smith, ex-officio member.

This new committee replaces the carded cotton sale yarn industry groups of the former Office of Price Administration and Civilian Production Administration, which were alerted early in August.

Q. M. Association Names Logan President

Col. Paul P. Logan (U. S. A., Ret.) was elected president of the Quartermaster Association at the national convention of the group Oct. 6 in Philadelphia. Colonel Logan, who is director of research for the National Restaurant Association, succeeds Roy A. Cheney, president of the Underwear Institute. Re-elected vice-presidents were Brig.-Gen. Wayne Allen, now chief administrative officer of Los Angeles County, Los Angeles, Calif.; Charles P. McCormick, president of McCormick & Co., Inc., Baltimore, Md.; Ellison S. McKissick, president of Alice Mfg. Co., Easley, S. C.; and James V. Demarest, president of Inkcrafts, Inc., New York.

Five seminars featured the program for the event. These seminars considered (1) textiles and knitted goods; (2) clothing; (3) foods and food containers; (4) leather and footwear; and (5) metals and mechanical equipment.

A five-point program to eliminate difficulties which have arisen in setting up the Industrial Mobilization Planning Program in the textile industry was outlined by Col. Hugh Mackintosh, Q.M.C., Office of the Quartermaster General. Colonel Mackintosh told textile men that they should (1) consider the capacity of their facilities with a view toward increasing that portion originally planned for military production; (2) investigate immediately into the capabilities of their facilities for the production of items for which the government is experiencing difficulty in locating the required capacity; (3) determine possible ways and means of increasing production capabilities through new processes or methods; (4) consider whether current procurement workloads warrant a change from previously accomplished planning with industry facilities and (5) keep the Quartermaster Corps industrial mobilization representative advised of such possibilities.

Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute, called for an immediate freeze on all current-crop cotton exports until the entire harvest could be measured for quality and quantity, against domestic needs in the year ahead. "All I ask," Mr. Jackson told the association, "is that no cotton be squandered in export until we know whether this year's cotton crop will be large enough, and of good enough quality, to meet the needs of our mills."

A cotton carry-over of four million bales is needed, Mr. Jackson said, to keep the mills spinning without pause into next year. To achieve this carry-over, we must eliminate all but 1,600,000 bales for export. If the nation exports this year, as it did last year, 5,600,000 bales, the balance for carry-over would be practically nil, he argued. The only source for a four-million-bale carry-over would be the export cotton, since domestic consumption, 10,600,000 bales last year, will increase if anything.

Lieut.-Col. C. A. Shaunesey, Jr., of the Quartermaster Industrial Mobilization Planning Office, N.Y.Q.M.P.A., revealed that planning of the Quartermaster Corps hereafter will be based on a three-year period after mobilization, instead of a two-year period as before.

In his remarks as retiring president of the association, Mr. Cheney cited Charles A. Cannon of Cannon Mills, Kannapolis, N. C.; Percy Howe, president of American Thread Co., New York; and Ames Stevens of Ames Worsted Co., Lowell, Mass., as having done an outstanding job for the nation's economy. Mr. Cheney said they had rendered great service in connection with the grave shortage of wanted cotton fiber, particularly long staple, and wool. Mr. Cheney himself was saluted by being presented the "Certificate of Merit," an honor rarely bestowed by the Quartermaster Association. The presentation was made by the new association president, Colonel Logan, who at the same time presented Mr. Cheney with a life membership in the organization.

Launch Cotton Spinning Test Program

A program of spinning tests for cottons harvested by machine and by hand and ginned under varying conditions was launched for the cotton textile industry Oct. 7 at Clemson, S. C.

Representatives of the technical and research departments of 18 mills in the South attended the session, which was sponsored by the industry-wide committee on cotton quality of the National Cotton Council, and the American Cotton Manufacturers Institute, Inc.

The tests are to determine the spinning performance of cottons harvested mechanically and by hand and ginned under five different sets of ginning conditions, from elaborate to modern cleaning before and after ginning.

Following the general session, the visitors were taken on a tour of the Clemson College textile school, the Department of Agriculture research laboratories and the A.C.M.I. testing laboratories.

School Seeks To Locate Textile Alumni

Alumni of the School of Textiles at North Carolina State College have been requested to aid in establishing the whereabouts of a number of their former fellow students. T. R. Hart, director of instruction, is endeavoring to compile a complete list of the school's textile alumni and requests that information be forwarded to him by any alumni knowing the present address of the following: J. W. Barnes, class of 1937; J. W. Black, '29; W. W. Blakeney, '22; H. S. Bliven, '34; W. H. Burbury, '29; I. B. Covington, Jr., '36; A. B. Elam, '37; J. M. King, '33; L. P. London, '30; S. K. Marathe, '25; O. J. Mullaney, '32; B. L. Overbey, '39; E. J. Phibbs, Jr., '37; H. E. Rea, '23; C. D. Reams, '31; M. M. Roberts, '24; N. S. Sharp, '16; C. D. Sickerott, '42; W. H. Smith, '29; J. H. Strait, '42; A. T. Strupler, '39; T. K. Taylor, '40; Waldo Trescott, '42; B. F. Vaughan, '42; Charles Widlitz, '39; and Carl Wynn, '36.

Gossett Cites Growth Of Textiles In South

America's "free enterprise system" enabled Southern industrialists to surpass New England in building the nation's textile center in this region, Dr. Benjamin B. Gossett of Charlotte, N. C., nationally known textile executive, declared in an address to an audience of around 500 in the School of Textiles at North Carolina State College Oct. 12. Dr. Gossett's address was the first feature of the "B. B. Gossett Lecture Series," which he established at the college. He was introduced by Dean Malcolm E. Campbell of the college's school of textiles.

Reviewing the history of the textile industry in this country, Dr. Gossett said that New England maintained the nation's textile center until after the turn of the century but reported that there are now "more spindles in North Carolina alone than in all of the New England states."

"In fact," he said, "if you would draw a circle around Charlotte, using a 50-mile radius, you would find more spindles in the 50-mile circle than in all of the New England states combined."

Dr. Gossett declared that "the men who built this industry did not build it by holding out their upturned palms to

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Washington and Raleigh" and that these industrialists did not establish the industry "by running to their senators to ask for grants-in-aid." He also reminded his audience that these same men did not have a Marshall Plan with which to work after the Civil War, stating that "there was no benevolent conqueror to gladly and cheerfully pay the costs of the vanquished." He warned that "what we call 'the American way of life' is in danger" and that the system which brought progress to the South may be destroyed "with more bureaucracy than Thomas Jefferson ever dreamed possible."

Dr. Gossett, former president of the American Cotton Manufacturers Association and a former trustee of North Carolina State College, said that America is now "beset with many medicine men and snake charmers who tell us on every hand that the government will provide for all of our needs," but he stated that "our leaders have scrupulously refrained from telling us that the government cannot spend a dollar without first collecting it in taxes."

Commenting on the rise of the textile industry in the South, Dr. Gossett said: "Viewing the great progress witnessed in this industry during the past half century, it seems to me to be especially appropriate that we consider for a few moments today some of the factors which made this progress possible. We know that one of the main factors was the courage and tenacity of the men who founded this industry in the face of the greatest obstacles imaginable and who persevered in their determination to manufacture cotton cloth near the cotton fields. This courage has been passed on to their successors, and because of it our industry is writing a new chapter in industrial progress.

"We know, too, that this progress could not have been made had it not been for the high quality and the great degree of loyalty of the thousands of men and women who came down from the slopes of the Blue Ridge Mountains to man the looms and the spinning frames of what was later to become a great industry.

"The integrity of our employees has always been our greatest asset. The fact that here in the South the president of the mill, the loom fixer, the spinner and the sweeper all came from the same stock, spoke the same language and worshipped the same God has meant that we have had far more harmonious employee relations than have industries anywhere else in the country. We have had a degree of mutual understanding which I believe is unsurpassed.

"One of the greatest factors contributing to the great progress of recent years has been the number of highly trained, intelligent young men who have come from the textile schools to work in mills from Maine to Alabama."

In his opening remarks, Dr. Gossett paid tribute to David Clark of Charlotte, editor of TEXTILE BULLETIN; Robert I. Dalton of Whitin Machine Works; and the late Gov. O. Max Gardner of North Carolina, all alumni of State College and all of whom were praised for their part in advancing the textile industry.

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Carded Yarn Spinners Up Production

Carded cotton sales yarn statistics for September give evidence that the spinners are making determined efforts to gear their operations to handle anticipated heavy military requirements as well as civilian needs, the Textile Information Service reports. Such evidence is to be found in another 6½ per cent increase in production during September, the third successive month in which the spinners have stepped up their output.

Despite the progressively accelerated rate of production, however, sales and shipments by the carded yarn mills continued to exceed output, the information service reported. As a result, inventories dropped still further during September while the backlog of unfilled orders reached a new high. On Sept. 30, stocks in spinners' hands were at the lowest level since February, 1948, and equal to only 36½ per cent of one week's production.

Unfilled orders on spinners' books at the end of September amounted to 14.64 weeks' production at the stepped-up rate, and were equal to 40.05 times the stocks on hand. On Sept. 2, the backlow was equal to 14.45 weeks' output at the then prevailing rate and 26.94 times the stocks on hand.

The information service, basing its report on Carded Yarn Association figures covering reports from approximately 1.4 million member spindles, noted that both the weekly production rate and unfilled orders at end-September were the highest since Carded Yarn Association statistics were first compiled in January, 1948. For the week of Sept. 30, 32 per cent of output consisted of knitting yarn, 54.3 per cent weaving yarn, and 13.7 per cent all others; in the week ended Sept. 2, the percentages were 31.1, 54.2, and 14.7, respectively.

Cotton Crop Estimated At 9,869,000 Bales

The Agriculture Department, in a harvest time report, recently estimated the cotton crop at 9,869,000 bales of 500 pounds weight. This is 13,000 bales less than 9,882,000 forecast a month ago. The indicated crop is far short of the government's goal of nearly 12,000,000 bales and is sharply below last year's 16,128,000 bales.

The crop also is short of the 1939-48 average of 11,599,000 bales. Because of the small size of the crop, Secretary of Agriculture Brannan has suspended acreage and marketing quotas for the 1951 crop and called for a production of at least 16,000,000 bales.

The 21st annual North Carolina State-wide Industrial Safety Conference will be held next May 16-18 at the Robert E. Lee Hotel in Winston-Salem, N. C.

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Lengthy Worldwide Wool Shortage Seen

The current worldwide wool shortage, the first since World War I, posed many problems for the International Wool Study Group which met in London, England, early this month. Wool experts from 24 countries attended the sessions. Most of those in attendance agreed that the shortage will last a long time and urged that steps be taken both to allocate existing supplies on an equittable basis and to insure greater production in the future. No definite program for accomplishing these steps was approved, however.

An American plan to allocate the new season Dominion wool clip on a "shares for each country" basis was opposed by the British wool trade which envisioned the United States appropriating the lion's share with resulting idle mills and unemployment in Britain's textile industry. Earlier, it is reported, the Australian Government turned down an American proposal that Australia close the auction market for wool to be in position to institute an allocations plan by which the United States could acquire a large stockpile of wool at an agreed price. The Australian Government is said to be unwilling to do anything that might deprive its farmers of the benefits of the boom, because the farmers have never asked for government aid in bad times.

From the long-term point of view it was believed that perhaps the shortage was due simply to post-war replenishment of wardrobes. On the other hand it was observed that the world's population had been increasing, that the level of prosperity had risen in many countries and perhaps the consumption of wool might remain at a permanently high level. Because of the difficulty of increasing wool production quickly some experts said that prices therefore would also remain permanently high.

Cite Benefits Of Scientific Management

Progress and benefits to the textile industry, as the result of scientific management, were outlined recently by Doma Watson of the standards department of Athens (Ga.) Mfg. Co. before a luncheon meeting of the Athens Rotary Club. Mr. Watson used his own company to illustrate the vast changes and progress which have been made, especially in the past ten years.

"Several years ago," he said, "the company foresaw the need for a lot of changes to keep it operating on a competitive basis. Management realized that three demands were being made. These demands came from the investor, the consumer, and the laborer. There was only one way these demands could be satisfied. Management had to be provided with the tools and equipment to produce more and better goods in a shorter period of time.

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Ala. Group To Discuss Carding, Spinning

Problems encountered in carding and spinning will be discussed by the Textile Operating Executives of Alabama at the next meeting of the group Oct. 28 at Langdon Hall, Auburn, Ala. R. B. Horsley of Pepperell Mfg. Co., Opelika, Ala., is general chairman of the association. The Auburn-Tulane football game will be played on the afternoon of Oct. 28 and a block of tickets to the game is being held for the Alabama textile executives.

Technical information on application of Stymer S, a synthetic size for synthetic warps, is graphically described in a new, illustrated booklet issued by the Merrimac Division of Monsanto Chemical Co. Containing a number of charts, photographs and line drawings, the booklet covers the advantages of Stymer S in mixing, sizing, weaving and desizing. Preparation of size, slashing acetate and viscose, and weaving Stymer S sized warps are also discussed.

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Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

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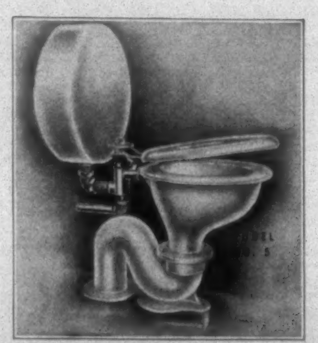

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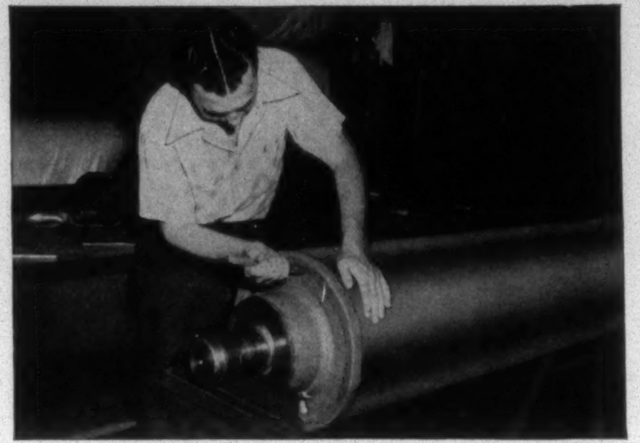

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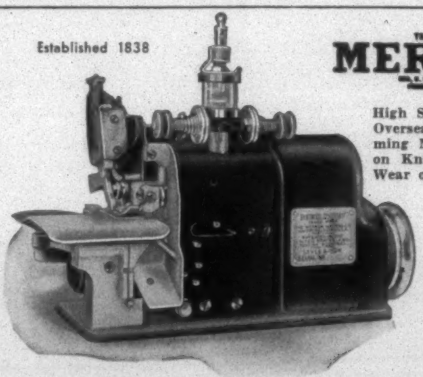

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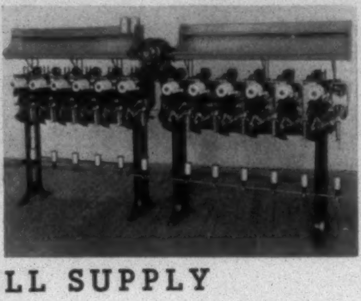

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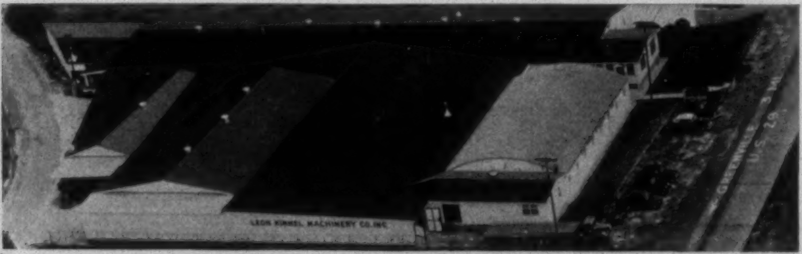

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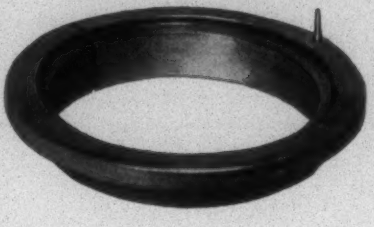

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ON SPINDLE OILING COST

JOB-PROVED that it saves up to 66% of the cost of oiling spindles. Eliminates "oil can fatigue" and continuous oil can refilling. Tank holds 5 gallons. Oil spindles with slight pressure on quick-acting no-drip control. Adjustable pressure and volume. Easily adaptable to other types of oiling. 6 volt Battery Power eliminates trailing wires or hoses.

*We GUARANTEE you can oil more spindles in less time at less cost with the Brown Dynalube Spindle Oiler than with your old method, OR YOUR MONEY BACK!

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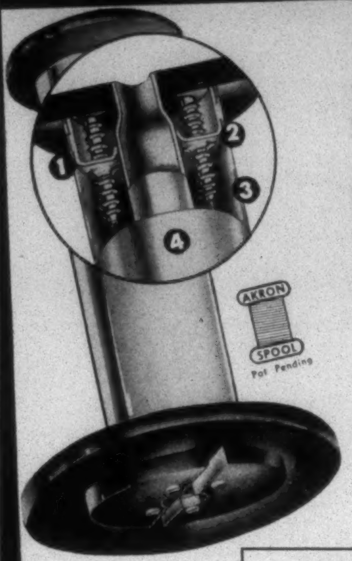

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1. **WELDS**—Precision resistance welded for added strength.
2. **INVERTED RETAINER PLATE** — Gives great rigidity, holding power and inherent concentricity.
3. **SCREWS** — Special heat-treated, rust-proof screws, enables quick replacement of parts; will not shake loose.
4. **CYLINDER BARREL**—Welded, rust-proof plated steel tubing.

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27—Frames Whitin Pease type Spinning, model A, 4" gauge, 180 spindles, tape drive, motor driven.
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1—Barber-Colman "K" model portable Tying-In Machine.
66—C & K 4 x 1 Automatic Looms, 92" cloth, with dobbys, belt and motor driven.
14—C & K 4 x 1 Automatic Looms, 96" cloth, with dobbys, belt and motor driven.
12—C & K 4 x 1 Automatic Looms, 100" cloth, with dobbys, belt and motor driven.
10—C & K 4 x 1 Automatic Looms, 108" cloth, with dobbys, belt and motor driven.

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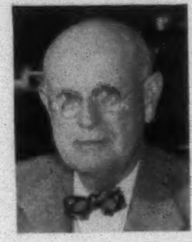
Before Closing Down

– TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED –

PERSONALS



C. C. Dawson *(at left below)*, manager of Burlington Mills Cramerton (N. C.) Division and for the past 42 years prominently identified with the textile business in Gaston County, N. C., is retiring from active management of the Cramerton plants effective Jan. 1. G. T. Gardner *(right)*, formerly assistant manager at Cramerton, has been named division manager succeeding Mr. Dawson. He will assume responsibility for most Cramerton operations this month and will take over complete management of the two plants after the first of the year. After Jan. 1, Mr. Dawson will continue to be affiliated with Cramerton in an advisory and consultant capacity and to handle special projects. Throughout his textile career Mr. Dawson has been associated with the Chamerton organization which he first joined in 1908 shortly after his graduation from N. C. State College with a degree in textile engineering. . . . Mr. Gardner, the new division manager, also has had a long association with Cramerton. He has been employed there continuously since his graduation from N. C. State College in 1934 with a degree in textile manufacturing, with the exception of four years spent in the army. At Chamerton he advanced through various jobs in both spinning and weave plants until his promotion to assistant superintendent of weaving, dyeing and finishing in early 1946. In October of that year he was named superintendent of those departments. In 1948 he was named assistant general manager, holding that position until his present promotion to the division manager's post.

H. D. Rouse has been appointed field project manager in charge of building the addition to the Du Pont Co. nylon yarn plant at Martinsville, Va. Construction of the addition was scheduled to get under way by the end of this month and completion of the project is scheduled in 1952. . . . F. M. Acker, formerly manufacturing superintendent of the Spruance rayon division plant of Du Pont at Richmond, Va., has been appointed manager of the Buffalo, N. Y., rayon plant succeeding Don A. Miller, who has been transferred to the explosives department. . . . Dr. Howard W. Swank, manufacturing superintendent of the acetate plant at Waynesboro, Va., becomes director of nylon research, succeeding Hood Worthington, who has been put on special assignment. . . . Andrew A. Smith, personnel superintendent of the Waynesboro plant, becomes manufacturing superintendent succeeding Dr. Swank. . . . Davis L. Lewis, district sales manager of the rayon division, Charlotte, N. C., becomes district sales manager of the nylon division, Charlotte, succeeding David B. Harden, who has been transferred to the planning division, Wilmington, Del. . . . John McMaster Ulmer, who has been a salesman in the division, succeeds Mr. Lewis as district sales manager of the rayon division, Charlotte. . . . Edward M. Epstein, technical superintendent of the rayon plant at Richmond, Va., is being transferred to the rayon plant at Old Hickory, Tenn., as technical superintendent succeeding Dr. Carey M. Swann, who is going on special assignment. . . . Dr. Rollin Conaway, assistant director of the acetate rayon research section at Waynesboro succeeds Mr. Epstein as technical superintendent at Richmond.

Charles Windham, formerly assistant superintendent, has been promoted to superintendent of the Pinkney Plant of Textiles, Inc., Gastonia, N. C. D. H. Whitener, who has had charge of both the Pinkney and Myrtle plants, requested to be relieved of the direction of Pinkney and will continue as superintendent of the Myrtle Plant.

Ellison A. Smyth has been named Southern sales manager for H & B American Machine Co., a new post in the firm, and will make his headquarters at the company's office in Charlotte, N. C. Mr. Smyth previously was president of Balfour (N. C.) Mills, Inc., for a number of years, and after the mill was purchased by International Cellucotton Products Co. in 1946 and renamed Berkeley Mills, Inc., he continued as president of Berkeley until his resignation in August. He is a past president of the North Carolina Cotton Manufacturers Association and served as a director of the former Cotton-Textile Institute.

Charles H. Campbell, vice-president in charge of sales for Sonoco Products Co., Hartsville, S. C., and Mrs. Campbell, were injured in an automobile accident Oct. 15 near Kershaw, S. C. Mrs. Campbell's sister was killed in the accident.

Walter Regnery, president of Joanna (S. C.) Cotton Mills Co., has been unanimously selected as a candidate for honorary membership in Phi Psi Fraternity, Iota Chapter, Clemson College, Clemson, S. C.

The late Irving W. Bullard, for many years head of the Bullard Clark Co. of Danielson, Conn., and Charlotte, N. C., was mentioned recently in a column featured in *American Aviation*, publication for the industry. Under the heading "25 Years Ago," the article recalls that "A $250,000 corporation called Eastern Air Transport was formed Sept. 21, 1925, with Major Lorillard Spencer, president; Irving W. Bullard and J. T. Trippe, operator of an air line in Central America, vice-president; Sherman M. Fairchild, president of Fairchild Aerial Camera Corp., treasurer."

Roger Milliken, president and director of Deering, Milliken & Co., Inc., is serving as chairman of a group soliciting the textile industry in behalf of the 1950 United Hospital Fund campaign. . . . Associated with Mr. Milliken in the solicitation of the textile field are: J. E. Bradley, vice-president and director of Pacific Mills, for cotton mills; Daniel B. Fuller of the N. B. Fuller Co., Inc., for cotton convertors; Harry Dalton of American Viscose, for rayon products; John Fox of Fox-Wells & Co., Inc., for rayon mills and convertors; and Jarvis Cromwell, president and director of William Iselin & Co., for textile factors.

S. R. Cross, secretary and treasurer of Cross Cotton Mills Co., is chairman of the board of trustees of the planned Marion (N. C.) General Hospital.

D. W. Barrier has resigned as assistant overseer of weaving at the Cooleemee, N. C., plant of Erwin Mills, Inc., to become superintendent of Broadnax (Va.) Cotton Mills, where he succeeds M. L. King. . . . Grimes Davis has been promoted to the position formerly held by Mr. Barrier at Cooleemee.

George Snow of Atlanta (Ga.) Brush Co. is shown in a recent picture in *The Atlanta Journal* as one of those present at the breaking of ground for the new Morningside Baptist Church in Atlanta.

Clarence G. Higginbotham, assistant treasurer of the H.D.V. Division of Callaway Mills Co., LaGrange, Ga., recently was elected to the LaGrange City Council.

W. F. Crowell, Jr., formerly a representative for Colgate Palmolive Peet Co., has joined the sales department of Moreland Chemical Co., Spartanburg, S. C., manufacturer of textile chemicals and specialties.

Luke J. Carbonetti, formerly supervisor of finishing at the Old Fort (N. C.) Division of Clearwater Finishing Co., is now supervisor of finishing at Rock Hill (S. C.) Printing & Finishing Co.

Osborne Bezanson, vice-president and member of the executive committee of Monsanto Chemical Co., will become president and a member of the board of directors of the Chemstrand Corp. effective Nov. 15. Mr. Bezanson will resign from Monsanto to accept the new position with Chemstrand, a corporation jointly owned by American Viscose Corp. and Monsanto. He will succeed Dr. C. A. Hochwalt as Chemstrand president. Dr. Hochwalt, vice-president of Monsanto and coordinator of the company's research development and patent activities, also served as temporary president of Chemstrand during the initial research and development stage of the latter corporation's activities in the field of synthetic fibers. Dr. Hochwalt will remain as a member of the Chemstrand board of directors. It was announced also that Harry L. Dalton, vice-president of American Viscose Corp., has been elected to the board of the Chemstrand Corp.

John Richardson has resigned his post as vice-president and sales manager of Hunt Machine Works, Greenville, S. C. Before joining Hunt in June, Mr. Richardson was for about 20 years associated with Crompton & Knowles Loom Works in Worcester, Mass. Mr. Richardson will make known his future plans later.

OBITUARIES

Dr. Willis Haviland Carrier, 73, chairman emeritus of the board of Carrier Corp., died Oct. 7 in New York City. Widely known as "the father of air conditioning," Dr. Carrier had been bothered by a heart condition in recent years. His wife survives.

Alton T. Jenkins, Jr., for the past 20 years head of the cotton department at Thomaston (Ga.) Mills, died recently at his home in Thomaston. Surviving are his wife, one son, a brother and sister.

Berthold A. Ludwig, who retired Oct. 1 as president of the National Aniline Division of Allied Chemical & Dye Corp., died Oct. 8 at his home in Westfield, N. J. Mr. Ludwig had been associated with National Aniline and its predecessors for 53 years, the past 20 as president. His wife and three sons survive.

George H. Small, 63, southern sales manager for Nopco Chemical Co. of Harrison, N. J., and Cedartown, Ga., died Oct. 12. Mr. Small joined the Nopco organization in June, 1931, as a sales representative in the states of Georgia, South Carolina and Alabama. In 1946 he was made district sales manager for the states of South Carolina, Louisiana, Tennessee, Georgia, Florida, Mississippi, Alabama and Arkansas, the position he held at the time of his death. He is survived by his widow and a son.

MILL NEWS

ATLANTA, GA. — The Georgia Supreme Court recently ruled that the state must refund $40,000 in income taxes collected "illegally" from Dan River Mills, Danville, Va., in 1947 and 1948. Dan River had filed suit challenging Georgia's corporation income tax, contending that its Atlanta office merely transmitted "offers to purchase goods" to the home office in Danville. The state charged, however, that sales thus handled constituted business in Georgia and were taxable as such. Georgia's Attorney-General Eugene Cook indicated that the state will ask the Georgia Supreme Court to reconsider its decision.

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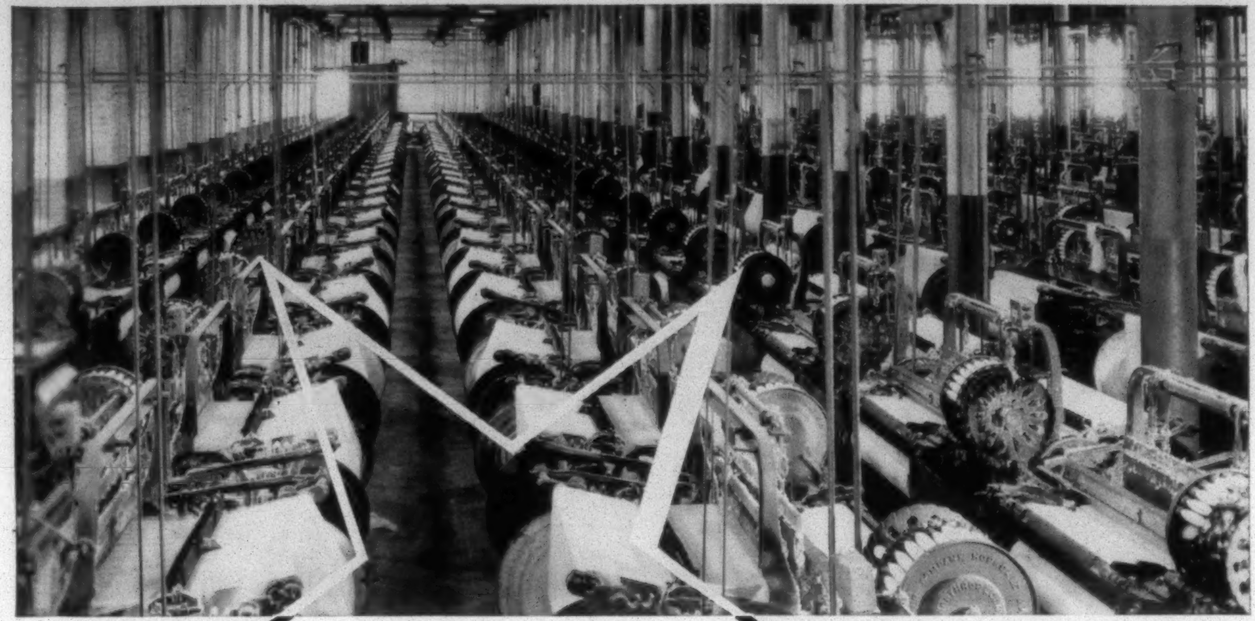

Three-Star Leather Belting in the weave-room of a prominent mill.

SPECIFICALLY MADE FOR THE TEXTILE INDUSTRY

3 STAR Leather Belting

An exclusive Charlotte product, especially designed and constructed to meet the particular demands of textile transmission. Its superb and continuous economical performance in many of America's leading textile mills is the result of complete control of its manufacture from the raw hide to the finished belt.

Selection of choicest quality leather, special tanning, currying and construction produces a belt of exceptionally high tensile strength, positive pulley grip and minimum stretch—all features desirable for textile industry power transmission.

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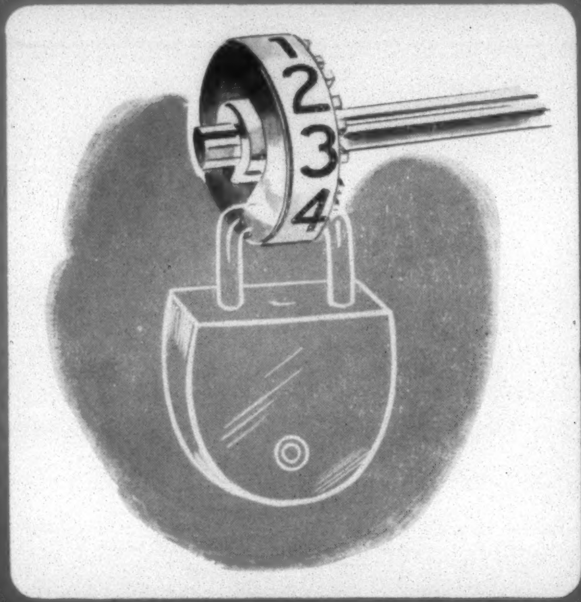
These 2 VANTAGE POINTS
Soon Pay for NEW 2-3 Pick Counters
in any Modern Mill



1. Easy Resetting:

Quick and easy as a snap of the fingers . . . Streamlined plastic reset knobs enable V-R 2-3 Pick Counters to be reset in double-quick time. *No pull-out required.* And no sharp edges to hurt the hands and slow work.

2. Locked Wheel:

Mechanical overthrowing is stubbornly resisted by this "inner-locking" wheel, which is really 2 wheels in 1. Disengaged with the shaft spline, this wheel resists overthrowing. And engaged with the spline, it resets to zero.

THESE ARE ONLY 2 of the 14 Vantage Points you get when you buy today's modern model of the V-R 2-3 Pick Counter. *You also get:*

QUICK CONVERTIBILITY, from 2 to 3-shift operation right in the mill, by your own men.
COMPRESSION CLAMPS that cut installation cost.
BOLD VISIBILITY that speeds up reading time.
YALE LOCK on front door.
NEW WHEELS give strength plus low weight.
STEEL MOUNTING INSERTS give extra strength against vibration.
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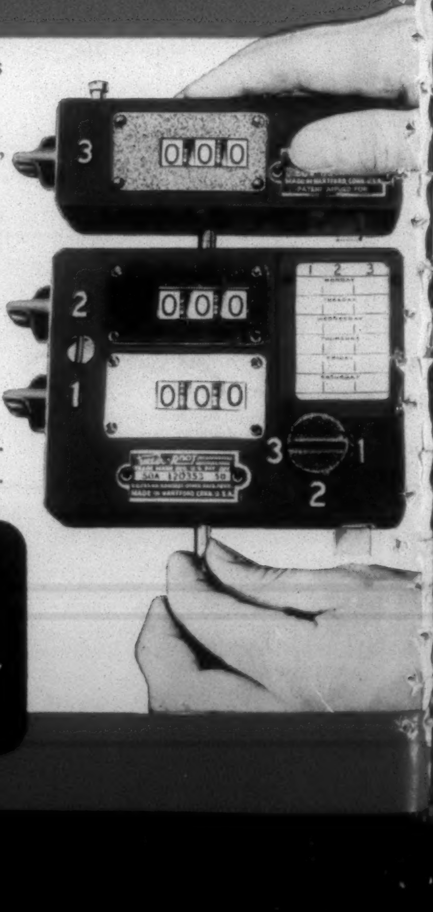
COMPLETE INSTALLATION — no extras to buy.

Let the Veeder-Root Field Engineer show you all these advantages of equipping your looms with *new* 2-3 Pick Counters . . . and Loom Cut Meters, too. Get in touch with the nearest office.



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